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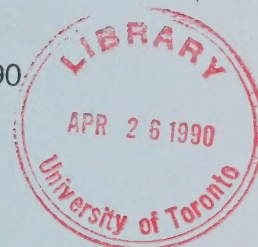
ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 192

DATE: Thursday, April 12th, 1990

BEFORE: A. KOVEN, Chairman

E. MARTEL, Member



FOR HEARING UPDATES CALL (TOLL-FREE): 1-800-387-8810

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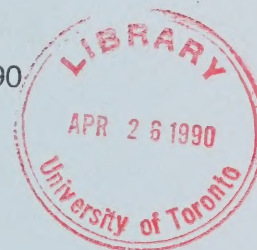


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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the
Honourable Jim Bradley, Minister of the
Environment, requiring the Environmental
Assessment Board to hold a hearing with
respect to a Class Environmental
Assessment (No. NR-AA-30) of an
undertaking by the Ministry of Natural
Resources for the activity of timber
management on Crown Lands in Ontario.

Hearing held at the Ramada Prince Arthur
Hotel, 17 N. Cumberland Street, Thunder Bay,
Ontario on Thursday, April 12th, 1990,
commencing at 8:00 a.m.

VOLUME 192

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member

A P P E A R A N C E S

MR. V. FREIDIN, Q.C.)	
MS. C. BLASTORAH)	MINISTRY OF NATURAL
MS. K. MURPHY)	RESOURCES
MS. Y. HERSCHER)	
MR. B. CAMPBELL)	
MS. J. SEABORN)	MINISTRY OF ENVIRONMENT
MS. B. HARVIE)	
MR. R. TUER, Q.C.)	ONTARIO FOREST INDUSTRIES
MR. R. COSMAN)	ASSOCIATION and ONTARIO
MS. E. CRONK)	LUMBER MANUFACTURERS'
MR. P.R. CASSIDY)	ASSOCIATION
MR. H. TURKSTRA	ENVIRONMENTAL ASSESSMENT
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MR. D. MacDONALD	ONTARIO FEDERATION OF
	LABOUR
MR. R. COTTON	BOISE CASCADE OF CANADA
	LTD.
MR. Y. GERVAIS)	ONTARIO TRAPPERS
MR. R. BARNES)	ASSOCIATION
MR. R. EDWARDS)	NORTHERN ONTARIO TOURIST
MR. B. McKERCHER)	OUTFITTERS ASSOCIATION

APPEARANCES: (Cont'd)

MR. L. GREENSPOON)	NORTHWATCH
MS. B. LLOYD)	
MR. J.W. ERICKSON, Q.C.)	RED LAKE-EAR FALLS JOINT
MR. B. BABCOCK)	MUNICIPAL COMMITTEE
MR. D. SCOTT)	NORTHWESTERN ONTARIO
MR. J.S. TAYLOR)	ASSOCIATED CHAMBERS
	OF COMMERCE
MR. J.W. HARBELL)	GREAT LAKES FOREST
MR. S.M. MAKUCH)	
MR. J. EBBS	ONTARIO PROFESSIONAL
	FORESTERS ASSOCIATION
MR. D. KING	VENTURE TOURISM
	ASSOCIATION OF ONTARIO
MR. D. COLBORNE)	GRAND COUNCIL TREATY #3
MS. S.V. BAIR-MUIRHEAD)	
MR. R. REILLY	ONTARIO METIS &
	ABORIGINAL ASSOCIATION
MR. H. GRAHAM	CANADIAN INSTITUTE OF
	FORESTRY (CENTRAL
	ONTARIO SECTION)
MR. G.J. KINLIN	DEPARTMENT OF JUSTICE
MR. S.J. STEPINAC	MINISTRY OF NORTHERN
	DEVELOPMENT & MINES
MR. M. COATES	ONTARIO FORESTRY
	ASSOCIATION
MR. P. ODORIZZI	BEARDMORE-LAKE NIPIGON
	WATCHDOG SOCIETY

APPEARANCES: (Cont'd)

MR. R.L. AXFORD	CANADIAN ASSOCIATION OF SINGLE INDUSTRY TOWNS
MR. M.O. EDWARDS	FORT FRANCES CHAMBER OF COMMERCE
MR. P.D. McCUTCHEON	GEORGE NIXON
MR. C. BRUNETTA	NORTHWESTERN ONTARIO TOURISM ASSOCIATION

I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>JAMES RODERICK GEMMELL,</u> <u>PETER MITCHELL MURRAY, Resumed</u> <u>CHARLES WRIGHT,</u> <u>RUDOLPH ZORN,</u> <u>KENT PERRY,</u> <u>DONALD R. JOHNSTON, Sworn</u>	33841
Direct Examination by Mr. Cassidy	33842
Cross-Examination by Mr. Hanna	33930

I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1116	Panel 5 Witness Statement.	33839
1117	MOE Interrogatory Question No. 4 and answer thereto. (Panel 5)	33849
1118	FFT interrogatory Question No. 1, MOE Interrogatory QAuestion No. 1, NAN Interrogatory Question No. 3. (Panel 5)	34023

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1 ---Upon commencing at 8:00 a.m.

2 MADAM CHAIR: Good morning. Please be
3 seated.

4 MR. CASSIDY: Good morning, Madam Chair,
5 Mr. Martel.

6 The OFIA/OLMA is prepared to commence its
7 fifth panel, fifth of 10, the panel entitled Access. I
8 should commence by filing a copy of the access witness
9 statement as the next exhibit, which I am unsure as to
10 what the number would be.

11 MADAM CHAIR: 1116.

12 MR. CASSIDY: Thank you. (handed)

13 MADAM CHAIR: Thank you.

14 ---EXHIBIT NO. 1116: Panel 5 Witness Statement.

15 MR. CASSIDY: Madam Chair, the evidence
16 in this panel, as I think you are aware, will consist
17 of evidence contained in Exhibit 1116, as well as
18 evidence detailing the access activities in each of the
19 case studies which you had an overview of yesterday
20 which are contained in Exhibit 1100. It may,
21 therefore, be handy to have both of those documents
22 within reach.

23 The evidence with respect to Exhibit
24 1116, Sections 1 through 5 of that witness statement,
25 the access witness statement, will be presented by Mr.

1 Charles Wright who is seated in the middle of this
2 panel. The balance of the evidence will be introduced
3 with respect to the case study -- the access portions
4 of the case studies by the remaining witnesses in front
5 of you.

6 Mr. Rudy Zorn on the far left will be
7 giving evidence in respect of the Canadian Pacific
8 Forest Products case study which is Exhibit 1100; Mr.
9 Kent Perry, who will be giving evidence in respect of
10 the E.B. Eddy case study, that would be Exhibit 1100;
11 Mr. Rod Gemmell will be giving evidence once again in
12 respect of the Abitibi-Price Iroquois Falls case study.

13 On the other side of Mr. Wright, Mr. Don
14 Johnston will be giving evidence in respect of the
15 Abitibi-Price Lakehead case study, and finally but not
16 least, Mr. Peter Murray once again will be giving
17 evidence in respect of the G.W. Martin case study which
18 is also in Exhibit 1100.

19 I might add that you will have the
20 benefit of Mr. Murray on at least two more panels in
21 respect of that case study.

22 I propose then to qualify the witnesses
23 in this panel and then ask that they be sworn.

24 Mr. Wright will be qualified as an expert
25 witness in the provision of access for timber

1 management activities; Mr. Johnston as an expert in the
2 provision of access for timber management activities in
3 the spruce-fir hardwood mixed wood cover type; Mr. Zorn
4 as an expert witness in the provision of access for
5 timber management activities in the jack pine upland
6 cover type; Mr. Gemmell as an expert witness in the
7 provision of access for timber management activities in
8 the spruce Clay Belt and Clay Belt management; and Mr.
9 Murray as an expert witness in the provision of access
10 for timber management activities in the tolerant
11 hardwood cover type and hard maple working group; and
12 Mr. Perry as an expert witness in the jack pine/aspen
13 upland mixed wood cover type.

14 And on the assumption there are no
15 objections, I would ask that the witnesses be sworn.

16 You will recall that Mr. Gemmell and Mr.
17 Murray have already been affirmed, and I understand the
18 remaining witnesses wish to be sworn before you.

19 JAMES RODERICK GEMMELL,
20 PETER MITCHELL MURRAY, Resumed
21 CHARLES WRIGHT,
22 RUDOLPH ZORN,
KENT PERRY,
DONALD R. JOHNSTON, Sworn

23 MR. CASSIDY: Madam Chair, Mr. Robert Cox
24 will be assisting me by putting various overheads up
25 during the course of Mr. Wright's evidence and he has

1 put an overhead up which can be found on page 19 of
2 Exhibit 1116 at the very top, and dealing with Section
3 1 of the witness statement.

4 For the purposes of the record, since
5 these are brief statements, I will be asking Mr. Wright
6 to read them in.

7 DIRECT EXAMINATION BY MR. CASSIDY:

8 Q. Mr. Wright, could you please proceed
9 with the first overhead?

10 MR. WRIGHT: A. Yes. Good morning,
11 Madam Chair, Mr. Martel.

12 Madam Chair, it is the position of the
13 Industry that the provision of access is a fundamental
14 step in the implementation of timber management. Roads
15 provide a vital and effective means of servicing the
16 land base and are a prerequisite for the subsequent
17 operations of harvest, delivery, renewal, stand tending
18 and protection.

19 Q. Thank you. Mr. Wright, could you
20 please summarize the Industry's primary concerns
21 regarding the provision of access as outlined in
22 Section 1 of your witness statement?

23 A. Yes, I can. Roads are the most
24 flexible and economic option available to a forester to
25 access the timber resource. There are other options

1 available such as rail and water, but both these
2 systems are interconnected with an already existing
3 road system and both don't provide the flexibility that
4 a road system provides.

5 The MNR has already given evidence on the
6 comparison between road, rail and water in MNR Panel
7 14, pages 54 to 64. It is with this in mind that the
8 Industry states that roads are necessary to facilitate
9 the renewal and harvesting activities in timber
10 management. The absence of such roads would preclude
11 timber management in such areas.

12 Q. Now, Mr. Wright, could you tell me,
13 do FMA holders build roads only for harvesting?

14 A. Yes, Mr. Cassidy. Absolutely not.
15 The Industry views timber management as an integrated
16 process. When roads are constructed they are
17 constructed to a standard that enables us to carry out
18 renewal activities as well as our harvesting
19 activities.

20 Q. And I understand, Mr. Johnston, that
21 in respect of your case study, the Abitibi-Price
22 Lakehead case study found at Tab 4C of Exhibit 1100,
23 you have an example you wish to refer to illustrating
24 Mr. Wright's point?

25 MR. JOHNSTON: A. Yes, I do. In case

1 study 4C at pages 26, 29 and 30 we refer to ground
2 inspections prior to regeneration and subsequent use of
3 site prep equipment such as the hardwood chopper.

4 We also refer to planning on page 31 and
5 all of the above use the original road network.

6 Q. And, Mr. Perry, likewise with respect
7 to your case study at tab 4B of Exhibit 1100, you have
8 an example that you would like to refer to the Board at
9 this point?

10 MR. PERRY: A. Yes, I do, Mr. Cassidy.
11 On page 11 under maintenance, we still use our road
12 system for stand tending and for monitoring of the
13 plantations in our case study area.

14 Q. Mr. Wright, can you carry on, please?

15 MR. WRIGHT: A. Yes. Most of the roads
16 in the area of the undertaking are built by Industry;
17 most of the forest roads that is.

18 MNR in Panel 14 estimated that up to 90
19 per cent of these roads are constructed by Industry.
20 For your reference, Madam Chair, this can be found in
21 Panel 14, Exhibit 682, transcript Volume 127, page
22 21509.

23 Q. Thank you, Mr. Wright. Can you
24 describe the standards to which roads can be built?

25 A. Yes, very briefly. Access roads can

1 be built to several different standards. These
2 standards are described in the Environmental Assessment
3 Document which is Exhibit 4 in Section 9.2.1 and these
4 standards are basically consistent across the area of
5 the undertaking.

6 Q. And, Mr. Wright, can you describe the
7 Industry's views in respect of the provision of access
8 and potential conflicts?

9 A. Yes. The Industry recognizes that
10 the roads it builds may provide access for some users
11 while other roads it builds may create conflicts with
12 other users. These conflicts must be addressed during
13 the planning process.

14 Q. In respect of that, Mr. Wright, you
15 have indicated you wish to deal with a matter that was
16 raised in the scoping session by Madam Chair with
17 respect to this panel and she was referring to page 31
18 of your evidence, but I understand you wish to deal
19 with it now, where she asked:

20 We would like to know what exactly is the
21 role of Industry with respect to the recognized
22 conflicts with other groups for either increased or
23 limited access. Does the Industry discuss problems
24 directly with remote tourist operators, for example, or
25 is MNR responsible for such negotiations and Industry

1 left to implement the agreement.

2 Could you please assist Madam Chair in
3 that regard?

4 A. Yes, I may. Madam Chair, the answer
5 to your question is Industry definitely discusses on a
6 one to one basis with all other users including tourist
7 operators.

8 Under the Industry's proposed draft terms
9 and conditions, in particular Sections 1 through 6,
10 this will become an integral part of the planning
11 process through the advisory committees, increased
12 public participation and the enhanced planning process.
13 This will be discussed further in the Industry's Panel
14 10 on planning that you heard about yesterday.

15 Q. Thank you.

16 MR. CASSIDY: If I can then ask Mr. Cox
17 to put the second overhead up and ask the Board to
18 refer to Section 2 of the evidence which can be found
19 commencing at page 22 entitled Access Planning.

20 Q. The overhead is now up and can be
21 found on page 22. And, Mr. Wright, if you could please
22 read that into the record?

23 MR. WRIGHT: A. Yes, Madam Chair. The
24 road planning -- it is the position of the Industry
25 that the road planning process must fairly assess the

1 economics of each location option against its impact on
2 the other affected resource values. While route
3 planning should follow a documented process, it must
4 retain sufficient flexibility to accommodate unexpected
5 constraints.

6 Q. And, Mr. Wright, could you for the
7 benefit of the Board please briefly summarize the
8 evidence in this respect?

9 A. Yes. Madam Chair, the Industry
10 supports a planning system that requires a
11 consideration and documented analysis of alternatives,
12 alternative corridors. The detail for this will be
13 dealt with in the Industry's Panel 10 on planning
14 access roads.

15 Q. I understand, however, that you wish
16 to refer to the matter of tertiary roads raised on page
17 23 of the access witness statement, Exhibit 1116?

18 A. Yes. A particular issue of concern
19 is the planning of tertiary roads in this EA.
20 Presently the Timber Management Planning Manual doesn't
21 require that tertiary roads be mapped, flagged or
22 indicated at the AWS or five-year plan stage.

23 The Industry supports MNR term and
24 condition 15(d) with the term and conditionc) of our
25 own that states:

1 "In areas containing a value any
2 necessary conditions on the location,
3 construction and uses of tertiary roads
4 shall be documented."

5 So it will be determined by the planning
6 process and documented.

7 Q. Thank you. Again returning to the
8 scoping session, Madam Chair asked the question about
9 page 23 where she referred to the quote that the:

10 "Selected corridor should be the one
11 that provides the shortest most
12 economical access to the desired area at
13 an acceptable level of impact on other
14 resource values."

15 And Madam Chair indicated that we
16 wondered what an acceptable level was and who
17 determines it.

18 I understand that in answering that
19 question you wish to file with the Board an
20 interrogatory filed by the Ministry of the Environment,
21 Interrogatory No. 4 which asked the same question, and
22 I understand you propose to read that to the Board.

23 MR. CASSIDY: I will pass out copies,
24 Madam Chair. (handed)

25 MADAM CHAIR: Do you want to mark this as

1 an exhibit, Mr. Cassidy?

2 MR. CASSIDY: Yes, perhaps we could mark
3 that as the next exhibit, Madam Chair, which I think
4 will be Exhibit 1117.

5 MADAM CHAIR: That's right.

6 ---EXHIBIT NO. 1117: MOE Interrogatory Question No. 4
7 and answer thereto. (Panel 5)

8 MR. CASSIDY: Q. Since it is brief, Mr.
9 Wright, please read that into the record?

10 MR. WRIGHT: A. Yes, I may. This is
11 from the Panel 5 interrogatories from the Ministry of
12 the Environment. The question is:

13 "What is considered an acceptable level
14 of impact and who determines the
15 acceptability of the impact?"

16 The answer is:

17 "The process of identifying values and
18 determining the importance to all
19 resource users and the public would be
20 determined in the proposed integrated
21 resource planning system for timber
22 management contained within OFIA/OLMA
23 Panel 10 on planning, beginning on page
24 34, Section 3.6 through page 39, the
25 second paragraph."

1 Q. Thank you. One final question on
2 this section, Mr. Wright.

3 MR. CASSIDY: If I could just have your
4 indulgence, Madam Chair.

5 Thank you.

6 Q. One final question, Mr. Wright. Can
7 I ask you: Is it practical to plan forest access roads
8 over a complete rotation of the forest?

9 MR. WRIGHT: A. No, I don't believe it
10 is practical. Our 20-year planning scope right now is
11 reasonable. Even at the 20-year level we have some
12 very hazy predictions that we make. To increase that I
13 don't believe would be practical.

14 Beyond 20 years you would encounter
15 serious difficulties in either actively or sensibly
16 predicting where your roads were required. Markets are
17 difficult to predict on such a long term, equipment
18 developments could change, location and type of road
19 needed 80 years down the road. It is with this in mind
20 that I believe it would be quite difficult.

21 Q. Thank you. If I could then move the
22 Board -- ask the Board to refer to Section 3 of the
23 evidence commencing on page 24, and Mr. Cox will put up
24 the next overhead which can be found at the top of that
25 page, the section entitled: Mitigation of Impacts.

1 And would you please read that into the
2 record, Mr. Wright?

3 A. Yes. Madam Chair, it is the position
4 of the Industry that impacts on the natural environment
5 can be minimized with sound road location and
6 construction practices, and by the use of the
7 appropriate guidelines.

8 Q. And could you summarize the evidence
9 in respect of this section, Mr. Wright?

10 A. Yes. It is the Industry's position
11 that we can minimize - and I stress minimize - the
12 environmental impacts of road building. We intend to
13 do this in three ways. First, we intend to follow the
14 guidelines. These guidelines include Exhibit 683, the
15 Environmental Guidelines for Access Roads and Water
16 Crossings; Exhibit 434, Code of Practice for Timber
17 Management in Riparian Areas; and Exhibit 379, the
18 Tourism Guidelines.

19 It is the Industry's understanding that
20 these guidelines give a range of acceptable
21 alternatives which aids the foresters to make sound
22 planning decisions. Secondly, the Industry will try
23 and employ the proper equipment to suit the site where
24 we are building and going along with this, we will
25 follow the proper construction practices to suit the

1 site.

2 Q. I understand, Mr. Gemmell, that you
3 may be able to assist the Board with an example of
4 construction equipment that was referred to by Mr.
5 Wright?

6 MR. GEMMELL: A. Yes, that's correct.
7 In the description of the site characteristics which I
8 presented to the Board on Tuesday --

9 Q. This is in respect of case study 4D?

10 A. Case study 4D, that's correct.

11 Q. Yes.

12 A. I indicated that the Clay Belt
13 contained a high component of wet organic sites and in
14 the harvesting of the road right-of-way in preparation
15 of the road base we use equipment which is equipped
16 with high flotation tracks and high flotation wide
17 tires.

18 The result is a minimum amount of
19 disturbance to the road right-of-way during
20 construction and I will elaborate further on this a
21 little later in this panel with some slides.

22 Q. Thank you. And, Mr. Murray, I
23 understand that you wish to refer the Board to a
24 description of a practice in your case study 4E?

25 MR. MURRAY: A. Yes, Mr. Cassidy. I am

1 going to quote from the case study 4E page 20, Section
2 5.3 where the statement is made:

3 "In most instances large trees were
4 bypassed as removing the stumps would
5 have created unnecessary disturbance to
6 the roadbed."

7 This is a practice that is very often
8 done in the Great Lakes/St. Lawrence tolerant hardwood
9 maple working group cover type.

10 The intent of this is to reduce the
11 damage or the disturbance to the site by requiring that
12 a large tree be pushed over and the root system
13 removed, therefore creating a large hole and in part
14 causing a lack or loss of regeneration possibilities.

15 There is another addition to this as
16 well, that in the Great Lakes/St. Lawrence in the
17 selection management system the trees that are left are
18 the crop of the future and by bypassing these potential
19 crop trees you in effect improve the standard of
20 stocking that's available for the future cut.

21 Q. Thank you. Mr. Wright?

22 MR. WRIGHT: A. Yes. A third way
23 Industry minimizes environmental impacts is by
24 attempting to provide competent and adequate
25 supervision on road construction projects.

1 Q. Now, I understand you wish to
2 summarize the evidence in respect of water crossings
3 which can be found in this Section 3?

4 A. Yes. In road construction, water
5 crossings are necessary and unavoidable. The Industry
6 believes that bridges and culverts can be constructed
7 to minimize environmental impacts such erosion,
8 scouring, sedimentation and damage to spawning beds.
9 The planning of these water crossings in relation to
10 other users will be discussed further in Panel 10.

11 It is the firm position of Industry that
12 (a) we can meet the guideline standards; (b) we can
13 adhere to provincial and federal legislation; and (c)
14 make our staff aware of other resource values and the
15 conflicts we have.

16 Q. And could you then turn to the
17 evidence dealing with road construction equipment and
18 summarize that for the benefit of the Board, please?

19 A. Yes. The forest industry employs a
20 variety of equipment on road construction. To
21 summarize briefly. The bulldozer is still the main
22 piece of equipment used on road construction across the
23 area of the undertaking. Other equipment includes
24 scrapers, loaders, tandem trucks, and hydraulic
25 backhoes.

1 The hydraulic backhoe has seen a dramatic
2 increase in use by forest companies on road
3 construction in the last 10 years. This will be
4 discussed later in this panel by Mr. Johnston.

5 Q. Thank you.

6 Mr. Cox, if I can ask you to put up the
7 next overhead in respect of Section 4 - Madam Chair,
8 Mr. Martel, which can be found commencing at page 28 -
9 and the overheads - thank you - are now up.

10 Q. And could you please read those into
11 the record, Mr. Wright?

12 MR. WRIGHT: A. Yes. Madam Chair, it is
13 the position of Industry that road use and abandonment
14 policies must be recognized as a legitimate resource
15 management tool. Strategies regarding road use should
16 be identified and addressed in the planning process.

17 It is also the position of Industry that
18 multiple use benefits that result from safe, properly
19 located and constructed access roads should be strongly
20 endorsed.

21 Q. Could you summarize this evidence
22 briefly, please?

23 A. Yes. The industry believes that the
24 use management strategy proposed in our Panel 10 on
25 planning is an essential part of the planning process.

1 The development of these use management strategies in
2 the timber management plan alerts all other users to
3 the plan decisions prior to construction of the actual
4 road.

5 Q. All right. And can you now turn and
6 speak to the evidence regarding road abandonment?

7 A. Yes. The Industry believes it can
8 abandon roads as stated in the Environmental Guidelines
9 for Access Roads and Water Crossings. For your
10 reference, Madam Chair, Mr. Martel, this is from
11 Exhibit 683, pages 37 and 38. This item will also be
12 addressed in Panel 10, planning by the industry.

13 Q. And, Mr. Murray, I understand you
14 wish to speak to the issue of the abandonment and
15 removal of water crossings?

16 MR. MURRAY: A. Yes. The Industry
17 believes that within the framework of the road use
18 strategies it is unnecessary to remove all of the water
19 crossings upon naturally and physically abandoned
20 roads. There are several valid reasons for this
21 belief.

22 Firstly, crossings were built to the
23 mandatory guidelines just referred to by Mr. Wright in
24 Exhibit 683, Environmental Guidelines for Access and
25 Waters Crossings and these guidelines when followed

1 mitigate the many problems that might develop and,
2 therefore, reduce -- greatly reduce the potential for
3 trouble.

4 Secondly, naturally abandoned roads must
5 be inspected every three years and/or more if
6 conditions warrant and the problem corrected. And this
7 is a condition that is also mandatory.

8 Further, Exhibit 683 states on page 25
9 and I quote:

10 "Structures built of permanent materials
11 may be left in place."

12 Therefore items -- materials such as
13 steel and preserved wood would be considered as
14 permanent.

15 The final point that I would make, and
16 this is specific of course to the site in the Great
17 Lakes/St. Lawrence, is that the Great Lakes/St.
18 Lawrence's selection system of management requires a
19 20-year cutting cycle and that means, as the Board will
20 remember perhaps from my discussion yesterday, that the
21 harvesting returns every 20 years and the question is:
22 Why would it be necessary to remove the permanent
23 structures from roads which will be reused in a 20-year
24 cutting cycle.

25 Q. Thank you.

1 MR. CASSIDY: If we could then turn to
2 the next section, Madam Chair, Mr. Martel, Section 5 of
3 the evidence, and I will be doing that momentarily.
4 That commences at page 30, and the overhead can be
5 found on that page.

6 Q. And could you please read that into
7 the record, Mr. Wright?

8 MR. WRIGHT: A. Yes. Madam Chair, it is
9 the position of the Industry that industry planners and
10 supervisors are well qualified through training and
11 experience to make sound access decisions.

12 Q. And could you summarize that
13 evidence, please?

14 A. Yes. As previously stated in my
15 evidence, Industry builds up to 90 per cent of the
16 forest access roads in the area of the undertaking and
17 has been doing it for many years.

18 Our experience has led to the
19 development -- to many developments such as the use of
20 flotation tires which minimize ground disturbance on
21 road construction jobs. Mr. Gemmell will be referring
22 to this later on in this panel.

23 It has also resulted in the development
24 of the hydraulic backhoe as a road construction tool in
25 the forest industry. This will be discussed by Mr.

1 Johnston later on in this panel.

2 We believe that the experience of our
3 field staff has aided Industry and MNR in making sound
4 practical access decisions for all plans.

5 MR. CASSIDY: And in terms of experience
6 levels, Madam Chair, I would like to canvass each one
7 of the witnesses to ask them about the number of years
8 that they have been involved in the timber management
9 activity relating to access in this area of the
10 undertaking.

11 Q. And, Mr. Zorn, could you tell us how
12 long you have been involved in these activities?

13 MR. ZORN: A. 35 years, Madam Chair.

14 Q. And Mr. Perry?

15 MR. PERRY: A. 10 years.

16 Q. And Mr. Murray?

17 MR. MURRAY: A. 25 years in the vicinity
18 of the case study.

19 Q. And Mr. Gemmell?

20 MR. GEMMELL: A. I have been involved in
21 access for 10 years.

22 Q. And finally -- I am sorry, Mr.
23 Johnston?

24 MR. JOHNSTON: A. This is my 39th year.

25 Q. And Mr. Wright?

1 MR. WRIGHT: A. 10 years.

2 Q. Thank you.

3 That completes Mr. Wright's evidence and
4 I would like to turn now to the first case study
5 witness who will briefly describe the case study access
6 activities, and that is Mr. Zorn. I believe it would
7 be helpful to have the case study binder handy, Madam
8 Chair, Mr. Martel.

9 Q. If I could then commence with you,
10 Mr. Zorn, in respect of case study 4A found in Exhibit
11 1100, the case study prepared by Canadian Pacific
12 Forest Products.

13 And I wonder just for the benefit of the
14 Board if you could point out on the Exhibit 1105, which
15 we are going to have to have produced up for you in a
16 just a minute, where that case study area is once
17 again?

18 MR. CASSIDY: If I could just have a
19 minute.

20 MR. ZORN: Mr. Cassidy, the case study
21 area 4A --

22 MR. CASSIDY: Q. If you could just hold
23 the mike a little bit closer to you.

24 MR. ZORN: A. The case study area 4A is
25 in northwestern corner of this map Exhibit 1105 in the

1 English River Forest area.

2 Q. All right. And the case study area
3 is indicated by an arrow on that area?

4 A. That's correct.

5 Q. All right, thank you.

6 MR. CASSIDY: If I could just have a
7 minute.

8 Q. I understand that you wish to refer
9 to a slide now?

10 MR. ZORN: A. Yes, Mr. Cassidy, I would
11 like to refer to a slide and point some of the
12 development of the area on the map.

13 Q. All right. And this was a slide
14 shown yesterday by Mr. Roll and I understand this is
15 slide 2.6 from the Canadian Pacific Forest Products
16 case study 4A.

17 And you are going to explain the road
18 network in the case study area?

19 A. Yes, Mr. Cassidy, and the work that
20 went in prior to actual construction.

21 Q. All right.

22 A. Madam Chair, Mr. Cassidy, Mr. Martel.
23 Mr. Roll gave you an overview of the total area, of the
24 spurs and of the roads for the English River Forest
25 work settlement in the western area. This line through

1 the middle here is the limit line and heading north up
2 into lake waters.

3 As Mr. Roll indicated, the Thunder Bay
4 mills is laid on a line southeast and most of the wood
5 had to be transported or trucked straight down and then
6 towards Thunder Bay. By the access of CP line -- a CP
7 rail line there was a possibility of moving the wood
8 south by rail and also by truck.

9 In 72-73 when this area had to be
10 developed due to additional wood requirement for the
11 Thunder Bay mills, the first idea was to access the
12 road through the middle and studies were undertaken on
13 aerial photographs. Subsequent aerial reconnaissance
14 indicated old Dryden Paper roads existed in the area
15 and one of them coming up almost to the limit line,
16 another one was going over here almost at the limit
17 line.

18 Q. You are referring to basically the
19 centre of the slide 2.6?

20 A. The centre of the slide. Another
21 access coming in from Dymont came up from the bottom
22 and ended up here at Keikewabik Lake. There was some
23 access coming in from Highway 72 from Sioux Lookout.
24 This area was also considered but most of the wood had
25 been harvested and the remaining stands were of low

1 rotation age.

2 The same applied here in the middle area.
3 The timbers were 65 years old, below rotation age. For
4 a jump off point from here, immediately we were in the
5 90 to 110-year-old jack pine spruce stands would be --
6 which actually would have been over age. So this area
7 was considered as the main access road and leading to
8 the camp 328 which was constructed then in 1974-75
9 while the bottom end of the road was upgraded to
10 primary road standards.

11 During this period development of the
12 roads was continued, but as Mr. Roll indicated
13 yesterday, it was in this old fashion where the main
14 access road headed north up to Sioux Lookout, another
15 one heading kind of east and northeast into overmature
16 timber that had to be harvested first; another area was
17 heading west, and the proposal was to come through here
18 in the middle and being cut off here by Keikewabik
19 Lake.

20 After the aerial photograph studies were
21 completed the proposed location for these roads was to
22 go through the middle and they would be actually
23 rerouted through the adverse ground conditions. There
24 was through here a steep swamp 300 feet wide with very
25 high sides on either side and bedrock deposits.

1 Q. You are referring -- sorry, Mr. Zorn,
2 you are referring to the upper right-hand portion of
3 slide 2.6?

4 A. That's correct, just north of the
5 case study area. So the road was relocated to the
6 south leading past the eventual case study area and was
7 continued coming over here and eventually crossing
8 Suzanne River here and where a pre-selected riverside
9 had been chosen.

10 Q. Again you are referring to the upper
11 right-hand portion of slide 2.6?

12 A. Yes. This is the whole area in here
13 of the area of the operating, including this area north
14 and to the east.

15 In the last year before the camp was
16 constructed this development took place and the Suzanne
17 Road was actually constructed to about halfway to
18 where the case study area road was built subsequently.
19 I can sit down.

20 Q. Can you summarize just briefly the
21 reasons for the Suzanne Road?

22 A. The Suzanne Road. There was a plan
23 in mind to hook up Suzanne Road to Highway 72 --

24 THE REPORTER: I'm sorry, I'm having
25 difficulty hearing.

1 MR. CASSIDY: Q. Mr. Zorn, if could you
2 pull the mike a little bit closer to you.

3 MR. ZORN: A. There was a plan to hook
4 up the Suzanne Road all the way over to Highway 72 to
5 provide access for commuters, people living in the
6 Sioux Lookout area and also going southwest to Dymont,
7 Highway 17, because also employees were living there
8 and had preferred to commute to our operations.

9 The road at Dymont was quite long, quite
10 crooked and hilly and consequently had the nickname
11 Turkey Trail and further development was not undertaken
12 because the road that was built into the area was high
13 speed and took less time actually than driving the
14 longer distance through Turkey Trail.

15 Q. Mr. Zorn, are you aware of the
16 non-timber values in the area that were identified at
17 the time?

18 A. Yes. During the planning stage there
19 was a tourist camp identified on Basket Lake but that
20 Basket Lake tourist camp had actually road access
21 already off Dryden Paper roads.

22 There were two tourist operators on
23 Keikewabik Lake, that is in the northern part north of
24 the Suzanne Road, and they were both located on the
25 north shore where the Suzanne River runs out of

1 Keikewabik Lake and the other one was on the west
2 shore.

3 When we made investigations for the river
4 crossing of the Suzanne River we found a boat cache on
5 Keikewabik Lake, we went in there by canoe and paddled
6 up the Suzanne River to find a suitable site. The
7 suitable site which -- preferred site, gravel bottom, a
8 rapids site was actually unsuitable because of the high
9 hills on both sides. We went through the grade to cut
10 down on the bridge from getting away from the very
11 steep and -- (inaudible).

12 THE REPORTER: I can't hear, I'm sorry.

13 MR. CASSIDY: Okay. You are going to
14 have to slow down a little bit, Mr. Zorn, and speak up
15 and repeat the last portion.

16 MR. ZORN: The road crossing selected on
17 the rapids on Suzanne River --

18 MR. CASSIDY: Can you hear?

19 THE REPORTER: Better.

20 MR. CASSIDY: Hold the mike even closer,
21 Mr. Zorn. You might even want to take it in your hand.

22 MR. ZORN: The road crossing on Suzanne
23 River over a rapids was actually discarded because of
24 the shorelines were too steep to bring a road down to
25 and get away from the river crossing.

1 A new site was found above stream, was
2 gentle sides on both sides but when construction of the
3 bridge was assessed it was found that the stream was
4 navigable either side, hence the superstructure had to
5 be six feet above the high water line. It required
6 timber piles for the shore and timber grips and the
7 timber grips had also to be lined with shiplap timber
8 to provide erosion or escape from fine materials in the
9 river.

10 MR. CASSIDY: Q. All right. I
11 understand that in the scoping session Madam Chair
12 asked about the locations of the camp near Basket Lake.
13 And could you please assist the Board on the location
14 of that camp?

15 MR. ZORN: A. Yes, Madam Chair. At the
16 first location or the first information that we will
17 see from Ministry of Natural Resources, the Basket Lake
18 Camp had requested there would be no further access to
19 the lake by anybody, hence when we by boat located the
20 campsite or inspected a possible camp site on the
21 northwest corner of Basket Lake we went into the bush
22 another half a mile where there was two smaller lakes,
23 but the camp then was located approximately a half a
24 mile west of Basket Lake in the vicinity of those two
25 smaller lakes but also those two smaller lakes, their

1 lakeshore reserves were observed.

2 Q. And this was before the use of any
3 guidelines?

4 A. Yes, Mr. Cassidy.

5 Q. Thank you, Mr. Zorn. Could you
6 please summarize the road locations or the road
7 location techniques used in the case study area?

8 A. Madam Chair, I think the Board last
9 July, '88 when they were at the Dryden site visit, you
10 were made familiar with aerial photographs of tie-in
11 points.

12 All road location starts with identifying
13 an area that is to be harvested or timber management
14 activities will take place. The most direct route is
15 through the middle on a direct line.

16 This is checked on aerial photographs and
17 delineations are made and lines are drawn and then
18 these lines that are possible or identified on aerial
19 photographs are transferred to maps.

20 The map will then be measured for
21 bearings and the distance of the bearing will go and as
22 a continuing march or a section to section walk from
23 bearing to bearing to the various distances, and as
24 long as your tie-in point from where you are starting
25 off is exact, and if you are compassing and your pacing

1 is in line, you will get from point to point where you
2 can identify yourself on photos.

3 Somewhere along the line you will find
4 yourself or you will find some mark on the photographs,
5 a pothole, an exceptional large tree, could be a swamp
6 where you know exactly where you are and how you
7 progress to the line.

8 The forester that is doing this work,
9 locating the road on the ground, he will hang ribbons,
10 plastic ribbons, whatever colour is chosen, behind him
11 to mark the route as a possible road line.

12 If there is -- if he should run into
13 difficulties when he finds a deep swamp, excessive
14 rock, he does observe as he walks along both sides of
15 the line not only for the road location but he looks at
16 the timber stands to quantify how much timber there is,
17 what types, what it is suitable for. He looks for
18 ground conditions, granular soils is good for road
19 construction, that is also good for regeneration work,
20 and all these are noted in his book.

21 He will make adjustments to the road, to
22 the previously located road. Where he passes the areas
23 where he feels the road cannot pass through, he will
24 find away around them and tie-in to the new line going
25 backward, and then going ahead, rip the old ribbon line

1 out and then continue until he reaches the place where
2 he wants to go, where the road should end, and there --
3 and this would be for the main access road.

4 From that information he will come up
5 with a time frame when the road should be constructed,
6 what time -- or what equipment should be employed for
7 the road construction, where the granular materials are
8 deposited and gives us a time frame or how many hours
9 we will need certain amounts of equipment and, of
10 course, this will give us an idea how much money it
11 will cost.

12 Q. All right. And could you describe
13 the construction techniques. First of all, before you
14 do that, I understand that the evidence at pages 9
15 through 11 of your case study can be referred to by the
16 Board in respect of the road locating techniques?

17 A. That's correct, Mr. Cassidy.

18 Q. And could you then now turn to the
19 evidence found at pages 12 through 14 of your case
20 study and describe for the benefit of the Board the
21 construction techniques used in your case study?

22 A. Madam Chair, after the line has been
23 physically located on the ground with a ribbon hanging,
24 the next phase would be harvesting equipment is brought
25 in to cut merchantable timbers or cut the right-of-way.

1 The right-of-way in most access road is
2 30 metres or a hundred feet if so required. Most of
3 the places it's narrower, you can get away with it. In
4 AOCs the restriction is usually done 25 or 30 metres.

5 The removing of the merchantable timber
6 means cutting it down by power saws and moving it with
7 skidders to off the road or with full-tree harvesters
8 or snippers and whatever means.

9 The next phase would be bringing in the
10 tractors and on a pre-established centre line or from a
11 pre-established centre line he will remove stumps,
12 forest debris, large boulders and push them off to the
13 side in the pushouts, cut them up so they do not hurt
14 the eye, more or less make the place look good.

15 From the ditch line or from higher lying
16 areas, access material is brought to the centre line in
17 the road and creating a grade which will be the
18 eventual road base, by adding subsequent layers and the
19 machines going back and forth will compact this road
20 grade.

21 If it is required or is foreseen that
22 additional material will be required it will be
23 brought in either by trucks, by scrapers, levelled off
24 to the desired grade and if it is required for an
25 all-weather road granular material will have to be

1 trucked in normally to put a 5- to 6-inch base of
2 granular material under it and give it a running
3 surface so we have the speeds that we like to travel
4 on.

5 In this instance there was quite a bit of
6 granular material on the road, on the site itself, very
7 little had to be hauled in.

8 Q. All right. And could you please deal
9 with the evidence in respect of extraction roads
10 contained in your case study?

11 A. Yes, Mr. Cassidy. Madam Chair, in
12 our company the forester will locate the main access
13 road. The phase supervisor, depending what phase, is
14 cut and skid, there will be a slightly different
15 tertiary road location then if it is feller forwarders,
16 full-tree forwarders or the time of the year.

17 If it is a winter logging operation, most
18 certainly every phase supervisor will have his
19 so-called windrows on the bottom of the hills because
20 it is a lot easier to pull loads downhill and these
21 windrows will freeze, will give a stable surface to go
22 on for the trucks and haul the wood out as Mr. Gemmell
23 I think will state later on in slides in his
24 presentation.

25 For other operational seasons; spring,

1 summer and fall, it is necessary to put these tertiary
2 roads on higher ground because the higher ground there
3 is less moisture and will make these roads more stable
4 to haul for longer period. With very little external
5 material to be brought in, you should be able to haul
6 all your material out.

7 And after these -- after the hauling
8 operation has been completed, it has been identified --
9 or roads have been identified already that will be
10 required for future regeneration work. These roads are
11 reshaped, the ruts are filled in and left in place so
12 in a year or so regeneration work can take place.

13 The other roads they are mostly been half
14 destroyed already by the hauling operation and it will
15 be almost totally destroyed as soon as the regeneration
16 work takes place either with drags or this -- those
17 Brackes, and one slide or several slides that Mr. Roll
18 showed yesterday proved that the tertiary roads in that
19 particular area had been all turned back to full
20 stocking almost.

21 Q. And for the Board's reference are you
22 referring to slide 5.2 that was shown by Mr. Roll
23 yesterday?

24 A. That's correct, Mr. Cassidy.

25 Q. Thank you. I would like now to turn

1 to some matters with both you and Mr. Wright in respect
2 of questions or comments raised by the Board at the
3 scoping session for this panel, Mr. Zorn.

4 And the first matter I would like to deal
5 with was a question asked by the Board in respect of
6 road construction camps, and I believe they asked if
7 the crews constructing the roads lived in the bush.

8 Can you help out the Board on that
9 matter, please?

10 A. Yes, Madam Chair. In the Basket Lake
11 area in 1972-73 there was no operating camp in the area
12 per se, there was no town in the area from where we
13 could have commuted and it was a period of very high
14 unemployment, so our equipment operators came from long
15 distances.

16 So we did have installed a construction
17 camp on the portions of the old Dryden Road for a
18 period of about a year and a half and in the first year
19 of construction the road was pushed into the camp
20 through merchant timber into the campsite. The
21 campsite was levelled off the following year and the
22 road reconstructed going backwards, so that the camp
23 buildings could be hauled in and they were pre-fab
24 buildings manufactured here in Thunder Bay.

25 And while this was going on the

1 construction crew also was in the campsite installed
2 sewer lines, septic fields, laying water lines and of
3 course well and electric power. After that all the
4 additional road construction was done from the main
5 operating camp.

6 In the other areas it was the same thing.
7 We have about seven operating camps for CP Forest
8 Products still and five or six -- six new operations.
9 But if any work has to be done -- road work has to be
10 done within an operating camp area, the men will stay
11 in that operating camp Monday to Friday.

12 Q. And the Board asked - and if I could
13 turn to you, Mr. Wright - if there are problems with
14 the compliance of people living on those construction
15 projects with respect to guidelines with respect to the
16 use of lakes and so forth.

17 Can you assist the Board in what your
18 experience of that is?

19 MR. WRIGHT: A. Yes, I may. I don't see
20 any problem with any camp installations with respect to
21 any guidelines that we must follow. The reserve is a
22 reserve whether it's a cutting operation or a camp.

23 Q. All right. And, Mr. Zorn, if I can
24 come back to you, I think the Board was interested in
25 knowing if it's a common practice or not to not locate

1 operations camps near waterbodies.

2 MR. ZORN: A. Madam Chair, it has been
3 the practice for our company for the last 10 years to
4 stay away from lakes because of other concerns that
5 have been pointed out to us by Ministry of Natural
6 Resources.

7 Q. All right.

8 A. We did at least stay away to 60-foot
9 shoreline reserve.

10 Q. And, Mr. Zorn, if I could then move
11 you to the next question raised by the Board and; that
12 was, how carefully does Industry supervise its road
13 building contractors.

14 And could you assist the Board with
15 respect to your understanding of that?

16 A. Madam Chair, for our company that I
17 am speaking for I know that we have two, three road
18 crews depending how much work has to be done in a
19 certain area. They work a double shift from June to
20 September, there is a supervisor on the shift working
21 on each shift full time. He may not be actually
22 physically present standing beside the machine the full
23 eight hours, he may be off putting in a centre line up
24 ahead, he may be back helping somebody installing a
25 culvert, but he's on that job and his full-time

1 responsibility.

2 Q. All right.

3 MR. CASSIDY: And if I could just have
4 your indulgence.

5 Q. I believe the Board was interested in
6 respect of your case study determining who the person
7 was who identified and marked the road location. Was
8 that a Canadian Pacific Forest Products employee?

9 MR. ZORN: A. Yes, Madam Chair. It is
10 the duty of the unit forester to locate access roads
11 that could be primary or secondary roads. In
12 conjunction, as I pointed out earlier, with that road
13 work or road location, he also collects stand
14 information, soil information, water crossing
15 information and regeneration information.

16 Tertiary roads, the access has been done,
17 that's when the phase supervisor will take over and
18 perform the roads -- put the roads to the season and to
19 his requirements.

20 Q. Thank you, Mr. Zorn.

21 If I could turn to you, Mr. Wright. And
22 the Board was interested I think in the scoping session
23 about the level of contact that a company has with --
24 or I'll read the question as I understand that the
25 Board was interested in.

1 What contact does the company have with
2 MNR after the submission of the operating plan with
3 respect to road construction in non-water crossing
4 situations.

5 And could you please describe that, those
6 types of contact, please?

7 MR. WRIGHT: A. Yes. Madam Chair, I can
8 only speak for my company and the Ministry districts
9 that I deal with, but in non-water crossing situations
10 the first contact after the five-year plan becomes the
11 annual work schedule where we must give a portion of
12 the five-year plan that we intend to construct during a
13 one-year period.

14 Other contacts, once construction starts
15 are visual inspections, cut inspections and area
16 inspections.

17 Q. And would those types of contacts and
18 the regularity of them vary according to the timing and
19 nature of the site-specific situations?

20 A. Yes. In areas of high value the
21 timing and intensity of the inspections will increase.

22 Q. And I would then like to carry on
23 with you, Mr. Wright, in respect of another question
24 asked by the Board in respect of actually Mr. Murray's
25 case study where Mr. Murray discussed - and I believe

1 will discuss in his evidence today - some restrictions
2 set out and required by the Ministry.

3 And the Board's question was: Are we to
4 assume that those are the types of restrictions that
5 would also be placed on FMAs if they had a similar
6 situation with respect to constructing the road.

7 And since you are dealing in an FMA
8 situation, Mr. Wright, I've asked you to assist the
9 Board in that respect.

10 A. Yes. If a situation on an FMA
11 company forest was similar to a situation on a Crown
12 unit the prescriptions would be the same. The
13 guidelines are made for both type of units.

14 Q. All right. And I would like to come
15 back to you with one final question, Mr. Zorn, and that
16 is the question of road locating techniques and
17 locating at the five-year stage.

18 Do you have any concerns that you would
19 like to raise with the Board on this?

20 MR. ZORN: A. Road locations five years
21 in advance are indicated on maps five years in advance.
22 In very narrow corridors, let's say in 250-metre
23 corridors - I heard something being mentioned - for our
24 company it is virtually impossible.

25 We have seen yesterday in Mr. -- the

1 overview that was presented yesterday afternoon late,
2 the planning cycle that takes place where we are seven
3 years, eight years ahead. In our company where we can
4 expect in a five-year period one five-year an annual
5 work schedule, that could be 500 kilometres of
6 primary or access roads and to locate these ahead of
7 time before the plan is presented to the public would
8 take at least three years of work, and how good the
9 work would be cannot be assessed. There may be changes
10 in operating techniques, there could be changes in the
11 requirement, there could be quite a few amendments. I
12 would not be sure that anybody can put a ground
13 location -- the physical work to do the ground location
14 if somebody says it's not necessary, I would say at
15 least half of this work has been lost so, you know, so
16 you're sure that you find on the ground what you have
17 seen on the aerial photographs.

18 Q. And you're referring to a 250-metre
19 corridor not a 500-metre corridor?

20 A. I'm referring to 250-metre corridor.

21 Q. And is that related also to distances
22 in northern Ontario?

23 A. Yes, it is distance -- related to
24 distance when you're going farther out there's no
25 access and the only way you can get in is by

1 helicopter, by tenting, doing your day's work and then
2 moving out again.

3 Q. Thank you, Mr. Zorn.

4 I would like to move to you, Mr. Gemmell,
5 in respect of case study 4D, which is the Abitibi-Price
6 Iroquois Falls case study which can be found in Exhibit
7 1100. And I'm going to ask you just to briefly remind
8 us where the case study area is by pointing it out on
9 the map. And there are a number of maps in front of
10 the Board there. Can you indicate which one is best to
11 indicate the case study area to the Board on?

12 MR. GEMMELL: A. Yes. Madam Chair, I
13 would like to indicate for the Board the location of
14 the Iroquois Falls Forest and the extent of the Clay
15 Belt by means of Exhibit 1109.

16 We've moved right across northern Ontario
17 now to the far east again. The Iroquois Falls Forest
18 is coloured in yellow here and is adjacent to the
19 Quebec border. The case study area is located central
20 in the Iroquois Falls Forest and Iroquois Falls -- the
21 Town of Iroquois Falls is in the southwest corner of
22 the Iroquois Falls Forest. And the Iroquois Falls
23 Forest is representative of the Clay Belt.

24 The Highway 11 corridor shown in black
25 here through the various towns; Iroquois Falls,

1 Cochrane, Smooth Rock Falls, Kapuskasing, Hearst, the
2 Highway 11 corridor bisects the Clay Belt and the Clay
3 Belt more or less stretches from the Quebec border to
4 beyond Hearst and represents an area of approximately
5 50,000 square kilometres in Ontario.

6 Mr. Zorn from Canadian Pacific has just
7 described the planning and lay out of roads in great
8 detail, and the process of planning and lay out of
9 roads is very similar at Abitibi-Price. There are some
10 major differences in actual road construction in the
11 Clay Belt and I would like to describe these
12 differences to the Board.

13 And again I would like to describe the
14 road system on the Iroquois Falls Forest by means of an
15 overlay. This is Figure 4, page 11, of the case study
16 binder which is Exhibit 1100, case study 4D.

17 Again we are in this area of the Iroquois
18 Falls Forest. The boundary of the Iroquois Falls
19 Forest is outlined in green, the Quebec border is here
20 on the right side. The case study is very central in
21 the Iroquois Falls Forest and the live-in camp is just
22 south of the case study area. Iroquois Falls is in the
23 southwest corner.

24 The major access to the case study area
25 is via three primary roads, a total distance of 78

1 kilometres. I think I have mentioned before in the
2 overview that the road systems are very dependent on
3 gravel and the gravel is located along these
4 intermittent esker systems. The gravel is scarce in
5 the Clay Belt and consequently road construction is
6 very expensive. So the major roads are few and far
7 between but located north and south close to these
8 esker systems.

9 And the other important point, the road
10 is located close to gravel sources but at the same time
11 has to be located in the vicinity of the supply of wood
12 also.

13 The Michelle Lake Road was the major
14 access road through the camp 33 area and camp 33 was
15 constructed close to them, or adjacent to the Michelle
16 Lake Road.

17 Q. What type of road is the Michelle
18 Lake Road?

19 A. Michelle Lake Road is a primary road.

20 Q. Thank you.

21 A. As I described in the case study
22 overview, the soils on the Iroquois Falls Forest are
23 predominantly clay and most of that is covered by peat
24 and, as I have mentioned, suitable gravel material for
25 road construction is found on only about 56 per cent of

1 the sites within the Iroquois Falls Forest and that is
2 those esker systems. All suitable gravel must be
3 trucked from gravel pits to the road being constructed
4 and the closer the source of gravel the cheaper the
5 road.

6 The Michelle Lake Road which I pointed
7 out is located in a northcentral direction along those
8 gravel sources. At the time of planning and
9 construction of the Michelle Lake Road there was one
10 area of concern and this was a lake in the middle of
11 the road called Welcome Lake and the road was
12 subsequently realigned to ensure a 400-metre buffer
13 away from that lake.

14 The case study area is located adjacent
15 to the Michelle Lake Road and all access into the case
16 study area is by means of winter roads and winter roads
17 are constructed on the natural terrain; for winter
18 roads gravel is not required.

19 Now, for the benefit of the Board I would
20 like to illustrate some of the features of our road
21 construction program by means of several slides. These
22 slides are part of Exhibit 1100 in the case study
23 binder, Tab 4D.

24 This is close to the mill, this is the
25 Northwest Development Road which is the road that leads

1 straight north from Iroquois Falls mill.

2 Q. What slide number is this, Mr.
3 Gemmell?

4 A. Sorry, this is slide No. 5.1. As I
5 have mentioned, roads in the Clay Belt are very
6 expensive to build because gravel has to be brought to
7 the road to construct them and we have a lot of wet
8 sites that require additional gravel.

9 Once they are built, however, they are
10 very straight and there is very few curves; in fact it
11 is rather boring to drive on them, but they are also
12 very safe.

13 And these major roads, this Northwest
14 Development Road is 20 kilometres long and at the top
15 end is an intermediate landing where the winter wood is
16 deposited and stored until it is required by the mill.
17 And on this particular road, because of the
18 straightness and the high quality, we are able to use
19 double trailer trucks, there is two trailers being
20 pulled by that haul truck and this is -- because of the
21 quality of the road, this is a very safe operation.

22 This is slide 5.3 and is just an
23 indication of the gravel sources which have to be
24 located to construct the roads and, as I mentioned, for
25 road construction all gravel has to be trucked from the

1 gravel pit to the point of construction. And it is
2 unfortunate that the room is light and the slide is
3 dark.

4 This is slide 5.2 and it is an
5 illustration of the construction of secondary roads.
6 And in harvest panel the Board will be introduced to
7 the type of harvest equipment that we use in the Clay
8 Belt and in the Iroquois Falls Forest and the same
9 equipment is used for constructing the base for the
10 roads.

11 First is the feller bunchers, the track
12 feller bunchers which cut the right-of-way, and then we
13 bring in the delimbers. The delimbers take the tops
14 and branches and place them under the road where the
15 gravel is going to be deposited and it forms a brush
16 mat. The wood is skidded by wide tired wheel skidders
17 and it is eventually hauled to the mill as production
18 wood.

19 So there is a brush mat placed of
20 branches and tops placed under the immediate
21 right-of-way on which the gravel is placed afterwards.

22 Q. Mr. Gemmell, this photograph, is it a
23 photograph of the actual case study area or is it a
24 photograph that representative of the case study area?

25 A. This is a photograph within our

1 Iroquois Falls Forest but is not specific to the case
2 study area. As I mentioned, the case study area itself
3 has only winter roads.

4 Q. Thank you.

5 A. In some situations the conditions are
6 very wet, and in that case we have the brush mat
7 underneath, the branches and tops are under that road
8 right-of-way and then we use a geotextile material
9 which is literally rolled out, it's a plastic webbed
10 material which is rolled out literally along the road
11 right-of-way over the brush mat and then this adds
12 strength to the brush mat. It also allows water to
13 penetrate through and the top to dry out and it
14 requires less gravel when the gravel is placed on top.

15 This is only used on the very wet sites.
16 It is rather an expensive method. It's probably
17 between 5- and \$10,000 a kilometre to lay this type of
18 material and we would use maybe one kilometre of this
19 material a year on the wettest of the sites.

20 If there are any drainage problems,
21 culverts are established through these areas across the
22 road.

23 Q. Can you clarify for the Board what
24 the purpose of that is, that material?

25 A. The purpose of the material is in the

1 very wet conditions the brush mat may not be stable
2 enough to hold the gravel, so that this material is
3 placed over the brush mat and gravel is placed on top
4 of this material and it strengthens the road. And this
5 is an all-weather secondary road.

6 This is an illustration of a typical
7 bridge, it's called a pile vent bridge, it's a type of
8 bridge that's been designed for use in the Clay Belt.
9 It's a very stable type of bridge in clay sites.

10 The pile vent refers to the piles which
11 are the vertical posts, they are pile driven vertically
12 straight down until they reach a point of resistance.

13 Q. What slide number is that?

14 A. I'm sorry, this is slide No. 5.7.
15 There is five pilings placed side by side and that's
16 called a vent. The vents are separated by about eight
17 feet, so this bridge would be, a 56 feet span. This is
18 a very typical bridge that we build across major water
19 crossings.

20 The amount of impact is minimal to the
21 side, you can see the grasses are still here on the
22 edges. The rivers are rather slow moving, so there is
23 little or no erosion problems.

24 Q. I understand that Mr. Adamson in MNR
25 Panel 14 referred to a bridge of this type?

1 A. That's correct. And this is just an
2 illustration of the similar type of pile vent bridge on
3 the road right-of-way.

4 Q. This is slide number...?

5 A. This is slide No. 5.8. And I would
6 just like to point out here that again we have rather
7 slow moving creeks with gentle slopes and this bridge
8 construction leaves the sides, the right-of-ways down
9 into those creeks undisturbed and there is vegetation
10 left there that acts as a filter and there is no
11 erosion.

12 Q. What slide number is this?

13 A. This is slide No. 5.9 and again this
14 is a creek system. It's rather difficult to see here.
15 There is a creek system across the road here and it is
16 just an illustration of the smaller creeks. It's a
17 slow moving creek system the culvert is placed in and
18 there is very little amount of impact here, the grasses
19 and sedge are undisturbed on the sides.

20 So on the largest crossings we use pile
21 vent bridges and for other crossings we use culverts.

22 This is slide 5.10 which I have
23 illustrated in the overview and as an example of - this
24 is actually our case study area - and on this slide
25 from right to left, this lighter strip is the Michelle

1 Lake Road which is the primary road. Into the case
2 study area are these parallel lighter strips which
3 represent the winter road access. So that in this case
4 winter access was the only access into the case study
5 area.

6 Generally speaking, in our situation 25
7 per cent of the roads we build are all-weather gravel
8 roads and because of the peat conditions 75 per cent of
9 the roads are winter roads with no building material.

10 5.11 is just a representation of the
11 initial building of a winter road in probably December.
12 The snow was just pushed with a tractor and opened up
13 and the road freezes and that's the extent of the
14 construction for the winter operation.

15 And slide 5.12, which I have shown in the
16 overview, is an illustration of the winter road in the
17 frozen condition and capable of holding these haul
18 trucks between the months of mid-December to mid-March.

19 And finally, slide 9.7 happens to be -
20 this is a right-of-way of a winter road in the case
21 study area, and this is a sphagnum seedbed which has
22 developed on the winter road after the road was
23 abandoned and this is a natural seedling, a seed fell
24 here and established on this wet sphagnum and after
25 this -- this is nine years after the cut, we have a

1 tree at approximately a foot in height.

2 So it is an illustration of the
3 rehabilitation, the natural rehabilitation of a winter
4 road in the Clay Belt.

5 That's the extent of my slides.

6 Q. Mr. Gemmell, can you just please go
7 back and check that last photo number and advise us
8 whether this is 9.7 or 9.6?

9 A. I have 9.7 in my notes but I can
10 check that.

11 Q. All right. Well, I'm advised that
12 that was changed -- the slide number was changed to
13 maybe 9.6 indicated, but the errata letter went out I
14 believe changing that to 9.7.

15 If not, if you don't have the errata
16 letter handy and not made the change noted it may be
17 9.6.

18 MR. MARTEL: It is 9.7 in the book.

19 MR. CASSIDY: All right, thank you. Yes,
20 the errata letter dated March 30 may assist. Thank
21 you. That's Exhibit 1102, is the errata letter.

22 Q. Thank you, Mr. Gemmell. I understand
23 you wish to summarize?

24 MR. GEMMELL: A. If I can just indicate
25 what I discussed in terms of the summary.

1 No. 1, the clay soils and peat soils are
2 difficult sites on which to construct all-weather
3 gravel roads in the Clay Belt. Low peat sites must
4 have a brush mat base on which to place the gravel to
5 surface. In some situations geotextile material is
6 uses for increased support.

7 Gravel pits must be located and gravel
8 must be trucked to the road construction site and this
9 is expensive.

10 Pile vent bridges are constructed over
11 major water crossings because they are very stable in
12 clay conditions; culverts are used on smaller
13 crossings.

14 Winter roads are the most economical but
15 are also restricted in use to winter operations only.

16 And finally, winter roads are the most
17 temporary in nature and rehabilitation takes place very
18 quickly after abandon,ment.

19 Q. Thank you. Mr. Gemmell.

20 If I can then turn to you, Mr. Johnston,
21 and now deal with the case study 4C prepared by
22 Abitibi-Price Inc., Thunder Bay, Lakehead Woodlands
23 Division, and that can be found at Tab 4C of Exhibit
24 1100.

25 And for the benefit of the Board if you

1 could refer to Exhibit I believe 1105 and indicate
2 where the case study area is on that map?

3 MR. JOHNSTON: A. Yes, I will, Mr.
4 Cassidy.

5 Madam Chair, Mr. Martel, this area here
6 as indicated by Mr. Squires yesterday is the Spruce
7 River Forest. The case study area is indicated by the
8 arrow and the dot and the Wolf River Road, which I will
9 be referring to, runs east and west along the bottom of
10 the Spruce River Forest.

11 Thunder Bay is located approximately
12 right here. (indicating)

13 Q. You were referring to the upper
14 left-hand portion of Exhibit 1105; is that correct?

15 A. Yes, Mr. Cassidy, that's just where I
16 was pointing right there, the yellow area with the
17 arrow and the dot.

18 Q. Thank you. Now, Mr. Johnston, can
19 you describe the case study access activities for the
20 benefit of the Board, please?

21 A. Yes, I will. Madam Chair, Mr.
22 Martel, the case study area is located 30 miles north
23 of Thunder Bay on what is known as the Wolf River Road.
24 The Wolf River Road was once an Abitibi-Price harvest
25 road. When the initial harvest in the area was

1 completed, the road was turned over to the Ministry of
2 Natural Resources who upgraded it and it became a
3 forest access road That was maintained by the MNR.

4 Roads into the harvest area were
5 constructed by Abitibi-Price as far as back as the
6 1940s using bulldozers and gravel trucks. These roads
7 were usually one to one and a half lanes wide and
8 accessed mainly spruce stands because of the market
9 demands at the time.

10 New market demands led to two return cuts
11 for other values such as jack pine for sawlogs and
12 pulpwood, poplar for veneer and pulpwood, birch for
13 veneer and hockey stick material, cedar for specialty
14 products, spruce has since become mature and spruce
15 that was mixed in with the poplar.

16 A second growth harvest of 50-year old
17 balsam is planned for the upcoming five-year plan.
18 Many of the old roads will be upgraded to facilitate
19 this fourth harvest.

20 Conventional road construction methods
21 were used in the case study area. This was -- the
22 roadway was done similar to that described by Mr. Zorn
23 in the Canadian Pacific Forest Products operations,
24 then bulldozing of stumps and unusable debris off the
25 right-of-way, building a roadbed with a bulldozer and

1 applying a surface dressing of gravel with dump trucks.

2 Q. Could you just give me a minute, Mr.
3 Johnston. Okay, you can go ahead.

4 A. We experimented with excavators over
5 here and excavators are described on pages 17, 18 and
6 19 from the case study. I have some slides to help
7 describe this, they are slides 5.5, 5.4 and 5.3.

8 The use of backhoes for excavators is
9 widely accepted in British Columbia. In 1982 we copied
10 their example and found that this system works well on
11 our ground conditions in our FMA area. And I would
12 like to show slide 5.5 to indicate what I mean by a
13 backhoe excavator.

14 Q. All right. You now have exhibit -- I
15 am sorry, slide 5.5 on the screen?

16 A. That's correct. This is slide 5.5
17 and this is an excavator on the right-hand side. This
18 is the machine that is similar to any one you would see
19 in the city that was digging a basement. It has wide
20 pads for flotation and in this slide you can see the
21 machine depositing some material that was taken from
22 the side onto what would become the roadbed.

23 We find that backhoes cause less surface
24 disturbance as road width clearings are reduced by
25 approximately 20 to 30 feet as compared to using the

1 bulldozer. A bulldozer will have to reach to the edge
2 of the road right-of-way to gather enough material to
3 make this roadbed, whereas an excavator is limited to
4 the reach of its boom, but because it can dig down deep
5 and choose the proper materials, we disturb less of the
6 road right-of-way.

7 On wet sites stumps are overturned and
8 other material is used in the construction, fines are
9 dug out of the ditch area and deposited on top of the
10 surface material on the roadbed. The ditches are then
11 backfilled with the backhoe.

12 On dry sites stumps and surface material
13 are pushed back past the ditch line, fines are dug out
14 of the ditch area and are used to build the roadbed.
15 The stumps and other debris are then pulled back into
16 the ditch and filled in to fill the deep holes. The
17 ditches are in a sense landscaped.

18 There are no windrows or berms of debris
19 left on the edge of the right-of-way. The natural lay
20 of the land is left reasonably undisturbed.

21 I would like to turn to slide 5.4. This
22 is slide 5.4 and you will see that the roadbed is being
23 constructed along the left upper side of the road.

24 The material to build this roadbed was
25 taken out of this ditch. The supervisor here is

1 standing in the ditch line. After the material is
2 taken out of the ditch and put on the roadbed, the
3 roots and other unusable material was dumped into the
4 ditch line to make it firm.

5 These are skidways of wood that were
6 skidded by the skidders after harvesting and the
7 skidders were able to bring their loads of trees to
8 these skidways and then traverse through the ditch
9 without rutting it.

10 Now, slide 5.3. This is an aerial view
11 of a road that is being constructed. You can see the
12 road right-of-way coming along right here.

13 Q. You are referring to essentially the
14 middle of the photograph?

15 A. Yes, that's right, I am pointing to
16 the middle, running from top to bottom. There is a
17 slight area here that isn't completed and the
18 right-of-way is continuing right up here.

19 A backhoe is digging a drainage ditch
20 where a culvert will be put in right here. You will
21 see that there is still a hole where the backhoe did
22 some digging right here and it hasn't been filled in
23 yet because he hasn't completed this last little bit.

24 But in this area here the ground is left
25 reasonably smooth. This was not hauled in, it was dug

1 out of the ditch area right here. And when I say that
2 we don't disturb too much of the road right-of-way, you
3 will note that this area is left undisturbed when the
4 road is made.

5 Q. All right. You are referring to,
6 when you say here, the bottom portion of the
7 photograph; is that correct?

8 A. Yes, I am sorry, the bottom left-hand
9 side, right there. All that is left to do on this road
10 is to apply a surface dressing of material that is
11 gradable and that will shed water.

12 I think the significance of this
13 photograph is that there are no berms or bulldozed
14 banks left on the sides of the right-of-way, the lay of
15 the land is left as natural as can be. And as I
16 repeated, this hole will be landscaped the same as this
17 area was. I think that is about all I can say about
18 that.

19 Q. All right, thank you.

20 MR. CASSIDY: That completes Mr.
21 Johnston's evidence in respect of case study 4C.

22 I am not sure what your intention is when
23 we start at eight in the morning, Madam Chair, but I
24 would be delighted with a break; however, I am fully
25 prepared to continue on as well until the normal break

1 time at ten o'clock or 10:10.

2 MADAM CHAIR: We can take a break now,
3 Mr. Cassidy.

4 MR. CASSIDY: Yes.

5 MADAM CHAIR: How much longer do you
6 have?

7 MR. CASSIDY: I believe we are
8 approximately between 30 minutes and 45 minutes from
9 completion.

10 MADAM CHAIR: All right. We will take a
11 break and who is to follow, Mr. Cassidy?

12 MR. HANNA: I believe I am up next, Madam
13 Chair.

14 MADAM CHAIR: All right, fine. Then we
15 will continue, we will go right into your
16 cross-examination when Mr. Cassidy is finished.

17 MR. HANNA: That is my intention.

18 MADAM CHAIR: And we will break for lunch
19 at twelve. We will be back in 20 minutes.

20 MR. CASSIDY: Thank you.

21 ---Recess taken at 9:40 a.m.

22 ---On resuming at 10:05 a.m.

23 MADAM CHAIR: Please be seated.

24 MR. CASSIDY: Madam Chair, before we
25 commence with the next witness, Ms. Devaul has asked me

1 to remind everyone in the room to please speak clearly
2 into their mikes. There appears to be a slight problem
3 with the volume today with the mikes, so if everybody
4 could please be reminded.

5 If I could then move to Mr. Murray who
6 will not only replace his name tag but now commence
7 with the evidence in respect of the case study 4E,
8 Madam Chair, found in Exhibit 1100.

9 Q. And, Mr. Murray, I wonder if you
10 could for the benefit of the Board point out the case
11 study area once again on Exhibit 1105 and then commence
12 your evidence?

13 MR. MURRAY: A. Yes, Mr. Cassidy.

14 Madam Chair, Mr. Martel, I will point out
15 the location of the case study 4E and I will also be
16 referring to Figure 4, page 7 of the case study when I
17 return.

18 Looking at Exhibit 1105, again the case
19 study of G.W. Martin is this very small dot down in the
20 corner just northeast of Huntsville, Ontario. It's
21 located in the Great Lakes/St. Lawrence Forest region
22 and it is in the Bracebridge Crown management unit.

23 Q. And can you now commence your
24 evidence by describing the road system in place on the
25 case study area at the time of the timber management

1 activities?

2 A. Yes, Mr. Cassidy. I shall be
3 addressing the access portion of the case study 4E and
4 it's referenced on pages 17 to 21 in case study 4E.

5 The map that I asked you to refer to
6 Figure 4, page 7, is again a depiction of the
7 Bracebridge Crown management unit, the Bracebridge
8 administrative district of the Ministry of Natural
9 Resources.

10 There are two arrows on the map; the
11 upper one is the case study, the lower one is the Town
12 of Huntsville and the ladder-like black line connecting
13 the two is the access route from the case study to the
14 mill of G.W. Martin.

15 You will also notice that in the
16 Bracebridge Crown management unit Highway 11 bisects --
17 very closely bisects the Crown unit, the southern end
18 being Washago and the north end being South River.

19 The roads that were available for
20 accessing the case study are a total of about 30.8
21 kilometres of which 1.6 kilometres was a provincial
22 Highway just adjacent to the sawmill. There was 9.7
23 kilometres of township road that was partially paved,
24 partially gravel, 19.3 kilometres of private primary
25 road extending beyond the township road, and there was

1 a small section of primary access road .2 kilometres on
2 the Crown unit outside the private land.

3 The primary access road that extended
4 beyond the township road was built by Weldwood of
5 Canada in 1983 and 1984 to access this general area.

6 Q. Could you pull the mike just a bit
7 closer, please. Thank you.

8 A. I would now like to refer to Exhibit
9 682. I am just going to quote from it, that is the MNR
10 statement of witness and --

11 Q. That is for Panel 14?

12 A. For Panel 14, yes.

13 Q. And what page reference do you have
14 there?

15 A. Page 108, Section 1.1 and I am
16 quoting Mr. Adamson and to quote, he said:

17 "The journey on forest access roads may
18 be relatively short as in the Great
19 Lakes/St. Lawrence Forest region where
20 highway and municipal roads are well
21 developed."

22 I think this case study is a perfect
23 example of that situation. Also Mr. Adamson explained
24 extensively in his evidence, again in the Ministry
25 Exhibit 682, the witness statement of the access panel

1 defined the classes of road that are used for access.

2 The first one was the class and the
3 primary, secondary, tertiary and the term is a span of
4 time; that is the span of use defines the road one to
5 five years for tertiary, 6 to 15 for secondary, and 16
6 plus for primary.

7 The roads that were constructed for the
8 case study, and I will be explaining shortly, were all
9 tertiary type roads.

10 There is a further definition of road
11 standards and this is the geometric standards. The
12 Board will remember again Mr. Adamson's evidence to
13 that extent. There are four basic geometric standards
14 A through D and, as I explained, these are in the same
15 document, the EA Document 682.

16 The A class road is a major high speed
17 road as you have seen described by and heard described
18 by some of my colleagues. The D class road is a fairly
19 basic road, and I am just going to give you a very few
20 basic specs on that one. They range between the A and
21 D. The D class road has a right-of-way width of
22 approximately 33 feet.

23 Q. Mr. Murray, if I could just interrupt
24 you there. I believe you referred to the EA Document
25 as Exhibit 682. I believe that you meant to say

1 Exhibit 4?

2 A. Excuse me, yes. Actually these
3 descriptions are in both documents.

4 Q. Thank you.

5 A. And it's Exhibit 4 and 682.

6 In 682 it's on page 120 Figure 2.2.

7 Q. Thank you.

8 A. The D class road, as I mentioned, had
9 a right-of-way of approximately 33 feet, capable of
10 speeds -- maintaining a speed of 15 to 20 miles an
11 hour, has a gravel surface of plus or minus six inches
12 and a minimum sight - and, as I mentioned that is m,a
13 distance that can be seen by an operator on that road
14 around a curve - it's a minimum sight distance.

15 The class C road is very basic, is
16 basically quite similar to that only it has a wider
17 wider right-of-way up to 66 feet and it can maintain a
18 slightly higher speed level because of that. The other
19 conditions in it are -- specifications are identical to
20 the class D road.

21 Some parts of the primary road system
22 built by Weldwood of Canada were of class C standard,
23 they had the wider right-of-way and some were the class
24 D geometric standard.

25 I have a couple of slides that I would

1 like just to show the Board and I will carry on with
2 some overheads.

3 This first slide that I have is slide
4 5.1, it's referenced on page 20 in the case study. As
5 I explained yesterday this is a basic geometric
6 standard D. It's a tertiary road built as a type
7 similar to that which was built in the case study.
8 This again is not specifically on the case study and
9 it's typical of the type of road that was built on the
10 case study for access.

11 I would just like to point out now to
12 reinforce what I mentioned earlier about bypassing or
13 avoiding trees in the construction, and you will note
14 on the left-hand side the road has taken a turn around
15 these trees here, these two large maple trees are
16 potential crop trees and they have been avoided in the
17 construction even at the expense of a slight turn in
18 the road. What in effect is happening with the
19 avoidance of trees is a slight lowering of the
20 geometric standard of the road.

21 And slide 5.3 please. This again is a
22 tertiary road that would be of the type constructed in
23 the Great Lakes/St. Lawrence. This is a winter road
24 and was not used of course for the harvesting of the
25 activity in the case study because it was a summer

1 operation but, again, it identifies and illustrates the
2 curve and although this -- unfortunately the light,
3 it's a little difficult to see, there is a stand of
4 trees in here of softwood trees.

5 Q. You are referring to the upper
6 right-hand portion of the slide?

7 A. Upper right-hand corner there are
8 some larger trees in here. They are softwood trees,
9 probably hemlock, and they have been avoided by taking
10 a route that was less covered with trees and you can
11 see by the fact that there's a very limited amount of
12 pushout along the road.

13 Those are the only two slides I have to
14 show.

15 I am now going to refer the Board to the
16 case study 4E, Figure 8 on page 19. This was the map
17 of the case study area and as yesterday I have some
18 overlays which will perhaps clarify components of that
19 map which will clarify the confusion if you will of the
20 multitude of information that is put on it.

21 So first, the first illustration I
22 have -- the first overlay is what in effect the man who
23 was responsible for road location would see when he
24 was -- prior to his determination of the possible
25 options for accessing that. He had to start with a

1 primary road that was already in position, in location.
2 He has a Ministry of Natural Resources map with the
3 classifications. The case study area is a portion of
4 type 418 and it is coloured in green. Of course the
5 road locator would not be aware of that specific site,
6 he was looking at accessing this whole area with roads.

7 He would -- has been described by my
8 colleagues again in the methods of road location, he
9 would be using aerial photographs and he would identify
10 with aerial photographs potential optional roads that
11 could be built into this area.

12 I will put on this other overlay.

13 Q. Now you have attached one overlay?

14 A. I have attached one overlay and I am
15 just going to place a second overlay on to identify
16 these optional construction locations.

17 Q. All of this is in reference to Figure
18 8 on page 19, Mr. Murray?

19 A. That's correct. These are all
20 components lifted from the figure on page 19, Figure 8.

21 So what we have now is what the road
22 locator would have placed after examining the
23 photographs and determining where potential roads could
24 be built.

25 Of course in the process of attempting to

1 identify these options - and we use options, in this
2 case the foreman and the technician doing this work was
3 keeping in mind all the time that there were values to
4 maintain and restrictions to be aware of - and he would
5 have identified these potential locations.

6 In the process of doing that, he has kept
7 in mind a number of features. He has to maintain, as
8 the Board questioned -- mentioned in their scoping,
9 they wondered about the restrictions. There were
10 Ministry of Natural Resources restrictions placed on
11 the construction of roads for this area.

12 The first one was that there would be no
13 lake access to lakes which did not previously have a
14 road access to them, and the two lakes they were
15 specifically concerned about were Hart Lake and Willie
16 Lake. Hart Lake is this lake here, it's a cold water
17 lake and was identified as a fish habitat, and Willie
18 Lake up above is also a cold water lake. It does have
19 access to the north from private land.

20 The Ministry also had placed a
21 restriction on -- a potential 30-metre restriction
22 around a hunt camp should one exist, this is very
23 popular deer hunting area and it so happens there were
24 no deer hunt camps located in that area.

25 There was a 30-metre no cut shoreline

1 around both Willie and Hart Lake. I will point those
2 out. That's Hart Lake and that is Willie Lake. There
3 would be a no cut shoreline around those particular
4 lakes.

5 Q. Hart Lake is at the top of Figure 8
6 and Willie Lake is at the bottom, or have I got it
7 backward?

8 A. You have it backward, Mr. Cassidy.
9 Hart Lake is this lake at the bottom and Willie Lake is
10 the lake at the top, and there was further a 20-metre
11 restriction around these lakes with regard to road
12 construction and no road construction around those
13 lakes.

14 Now, in addition to these particular
15 concerns that the Ministry had identified, the road
16 locator is also concerned about a number of other
17 things. He's looking for the access to gravel and our
18 colleague Mr. Gemmell mentioned how important gravel is
19 and it is equally important in the Great Lakes/St.
20 Lawrence area.

21 There were two gravel pits that had been
22 tentatively identified by ground checking and they are
23 G1 and G2. G1 is over here and G2 is over here. G1 is
24 located on a road that had been constructed prior to
25 1986 and G2 was one that was potentially available to

1 them.

2 The road locator is also going to be
3 looking for an area which will be relatively dry area,
4 he's not going to try and get into a wet site because
5 to build a road through a wet site can be more
6 disturbing to the site and it's more difficult to
7 construct.

8 He's going to keep his eye open for
9 landings and turnarounds. Landings are the locations
10 where the logs are brought by the harvesters to the
11 roadside, and the turnarounds are locations for the
12 trucks. They are fairly large trucks, as you can
13 appreciate, that move this material to the mill. Those
14 roads which I described are quite narrow and they have
15 to be able to turn around to get back out. So he's
16 looking for potential sites for locations of
17 turnarounds.

18 Another point they have to remember too
19 is that in the harvesting process skidders are used
20 particularly rubber tired skidders and they prefer to
21 skid downhill if possible, it's easier, and so you are
22 looking for a location that will at least allow you to
23 maintain that type of an approach.

24 Q. Does skidding downhill cause less or
25 more disturbance than uphill?

1 A. Skidding downhill is going to cause
2 less disturbance to the site because with a load, this
3 machine won't have to -- it won't be as difficult, it
4 won't spin and lose tracks and that type of thing.

5 However, it's not totally possible to do
6 that because the lower areas are often wetter, so you
7 are balancing between a good skidding location and an
8 area above a wet area where you don't want to get into
9 to do the construction.

10 They furtherto are looking and becoming
11 more aware of wildlife habitat sites. This, as I
12 mentioned, is an area of deer hunting and deer require
13 deer yards and if there is a potential deer yard that
14 may not have been identified it would be identified by
15 the locator and reported as such.

16 Things like also nesting areas. Although
17 it's not common, there are locations of nesting areas
18 in the hardwoods and occasionally there are what is
19 known as cavity trees where birds can nest and, if
20 possible, these will be avoided. They are a value of
21 concern.

22 And he's also -- you know, as a bottom
23 line, he's looking for a road of the least disturbance.
24 It is obviously easier to build a road in a good spot
25 than it is in a bad one.

1 So having done that and having located
2 what they think is a potential road location, they have
3 four different sites available and these were
4 identified as A, B, C and D.

5 A as you notice is traversing private
6 land on this side. I mentioned yesterday that these --

7 Q. Which side?

8 A. On the left-hand side there is a
9 cross-hatched area indicating private land. It so
10 happened that that private land originally and did
11 belong to Weldwood of Canada and it would have been a
12 potential access, however, this road was discarded
13 because it was a -- there was a ravine and a crossing
14 here which would have been very difficult to cross and
15 it wasn't necessary, so that area was scrapped as a
16 potential.

17 There is B, and B was another potential
18 site for a road location which could have come down
19 this way from this area. Had this area been opened, it
20 would have been located through here, but it is close
21 to a series of small lakes, although there were no
22 restrictions on them, it was also avoided as a
23 potential.

24 Q. For the record -- if I could just
25 interrupt, for the purposes of the record, the number

1 or the letters that Mr. Murray is referring to A, B, C
2 and...?

3 A. A, B, C and D.

4 Q. Can be found on Figure 8, page 19 of
5 the case study. Thank you, Mr. Murray.

6 A. The third option -- or I should say
7 the fourth one, I guess that's D, was located as an
8 extension of this existing road and it was discarded as
9 an option -- rejected as an option because there was a
10 very steep hill on this particular road and to have
11 attempted to build a road at that location, it would
12 have been both difficult and hazardous to have a steep
13 hill where it wasn't necessary.

14 So obviously the route that was left as
15 an option was C. It had the best potential for the
16 case -- for the area to open it up and that was the
17 option that was chosen by the company.

18 I have a further overlay now to put on
19 which will show the roads that were actually
20 constructed.

21 Here we have - it is a little confusing
22 perhaps to see - but the road that was constructed was
23 C and it is the dark line here, this dark line here.
24 (indicating) These branches were taken off this way
25 and this is the road system that was built to a

1 tertiary class for accessing the area and vicinity of
2 the case study and it -- there were approximately 4.8
3 kilometres of road built in that project. This road
4 was built in the early summer of 1986.

5 I am going to place finally -- the last
6 overlay will indicate two things, the sites of landings
7 and also the case study -- the area of the case study,
8 as I mentioned yesterday, cross-hatched.

9 Q. Again, all of this information can be
10 found on Figure 8?

11 A. This is all on Figure 8, yes. The
12 cross-hatching in the red boundary by red and the
13 cross-hatching is in effect identifying the area of the
14 case study which I indicated was 459 hectares and the
15 green area within the cross-hatching was the case study
16 itself.

17 The roads that extend beyond the case
18 study were roads that will be used for subsequent
19 operations, harvesting operations in the area.

20 The roads that were constructed were
21 built to the -- with conventional equipment as you have
22 heard described, the bulldozer doing the primary work,
23 bringing the road to grade, gravel trucks and the
24 loader and a small tractor spreading the gravel on the
25 roads and preparing them for the harvest operation

1 which followed shortly after.

2 That, Madam Chair, is the total of the
3 overlay. I will return now.

4 Q. And, Mr. Murray, can you describe the
5 pattern of roads then in that case study area in the
6 Great Lakes/St. Lawrence area?

7 MR. MURRAY: A. Yes, Mr. Cassidy. The
8 roads that I described are typical of the roads built
9 in a tolerant hardwood maple working group and the
10 tolerant hardwood is 50 per cent of the forest region.

11 The selection silvicultural system, as
12 has been described yesterday, varies from the boreal in
13 the period of use. As I mentioned, the cutting cycle
14 is a 20-year period and this means that as opposed to
15 that in the boreal where they return to use the roads
16 every 60 to 100 years, the bulk of the people at the
17 operations -- harvesting operations in the Great
18 Lakes/St. Lawrence will return every 20 years.

19 And I would like to refer the Board to
20 Exhibit 682 which was Panel 14's statement of evidence
21 and I would like to read several sections from that to
22 describe what I have mentioned.

23 This is Exhibit 682 and I am referring to
24 page 210. There are three statements that I would like
25 to read. The first one is from the second paragraph in

1 which it states that, and I quote:

2 "Natural abandonment occurs when road
3 maintenance has ceased yet steps are not
4 taken to prevent use of the road by
5 vehicles. With natural abandonment no
6 physical changes are made to the road,
7 however deterioration occurs through
8 erosion and decay process over time."

9 The second statement I would like to read
10 is that:

11 "Road abandonment..." this is on
12 paragraph 4 of the same page. It says:

13 "Road abandonment may be part of the use
14 management strategy for a road. In the
15 Great Lakes/St. Lawrence Forest where
16 selective logging is practiced, the
17 return cycle period between cuts may be
18 15 or 20 years and abandoned roads will
19 be restored and used again."

20 And finally, the last statement is the
21 second to last paragraph in that page in which they
22 state, and I quote:

23 "Naturally abandoned roads will be
24 inspected at least once every three years
25 and more frequently where circumstances

1 such as abnormal rainfall warrant."

2 This describes the situation as it
3 applies to the case study area in the Great Lakes/St.
4 Lawrence generally.

5 Q. Can you tell me about the reasons for
6 alternative planning considerations for this area?

7 A. Well, yes. The Board will notice
8 that there were four options identified in this case
9 study area. These are tertiary roads and however --
10 which normally may not require the type of
11 identification that's done, but in the Great Lakes/St.
12 Lawrence, because of the reuse of the roads every 20
13 years, it is important that the road be located and as
14 accurately and as reasonably located as far as possible
15 so that in the ensuing cutting cycle the road will be
16 there and will be in reasonable condition for the
17 second cutting cycle, or the continuing cutting cycle.

18 Q. The cutting cycle you are referring
19 to, does that relate to the selection management
20 system?

21 A. That relates to the selection
22 management system which is 20 years and it continues on
23 in perpetuity in that way. Those roads are there, they
24 will be naturally abandoned in most cases. It will
25 depend on the use strategy defined again by the

1 Ministry of Natural Resources unit forester, but the
2 strategy would in many cases be natural abandonment and
3 with the requirement that they be inspected
4 periodically to ensure that they are not causing any
5 undue -- there is no undue problem developing or
6 disturbance to the site area.

7 Q. Thank you, Mr. Murray.

8 MR. CASSIDY: I would like to turn to the
9 final witness, Madam Chair, and that is Mr. Perry who
10 will be giving evidence in respect of case study 4B,
11 the E.B. Eddy case study at Tab B of Exhibit 1100.

12 Q. And, Mr. Perry, I wonder for the
13 benefit of the Board if you would please point out on
14 the Exhibit 1105 where your case study area is?

15 MR. PERRY: A. Certainly, Mr. Cassidy.
16 The E.B. Eddy case study is located here just to the
17 right of the centre of Exhibit 1105 and is identified
18 by the arrow and the red dot. It is in the lower
19 portion of the Upper Spanish Forest.

20 Q. Thank you. And I wonder if you
21 could, while standing there, indicate briefly the road
22 network which exists in the case study area for the
23 benefit of the Board using Exhibit 1112 and Exhibit
24 1113?

25 A. If I may refer to Exhibit 1112, the

1 case study area is located here just east of our Camp
2 12, our logging camp. It would be approximately 75
3 miles north of Highway 17 on one of our main
4 all-weather access roads into our FMAs.

5 Q. You are now going to refer to Exhibit
6 1113 I believe?

7 A. Yes. Exhibit 1113 shows a closer
8 view of the case study areas which are located here,
9 that is on the right side, centre of Exhibit 1113 and
10 the four case study blocks as outlined yesterday by Mr.
11 Waddell are located here. (indicating)

12 The main access road into the case study
13 area was the Ivy/Kelso Road which is this road here on
14 the east side of the main access road into the FMAs
15 called the West Branch Road which I referred to
16 earlier.

17 Again, here is Camp 12, one of our
18 live-in logging camps. The Ivy/Kelso Road is a
19 secondary class road and is built in a second -- or a
20 semi-circular fashion and joins the main West Branch
21 Road at two points. The Ivy/Kelso Road runs generally
22 north and south accessing the case study blocks.

23 Q. And were there any tertiary roads
24 located in the area?

25 A. In that area there were no other

1 specific roads into the case study blocks, although
2 there were other tertiary roads in that area, but not
3 in the case study blocks per se.

4 Q. And I believe Mr. Waddell yesterday
5 referred to a slide that --

6 A. Yes, that would be slide 2.2 the
7 aerial view which showed the other tertiary roads south
8 of the case study location.

9 Q. All right, thank you. Now, Mr.
10 Perry, could you describe for the benefit of the Board
11 the road location techniques used in the case study
12 area?

13 A. Yes, Madam Chair. The road location
14 techniques which were used to locate the road into the
15 case study area were very similar to those that were
16 discussed by Mr. Zorn, the Canadian Pacific Forest
17 Products case study.

18 In general they would involve the use of
19 people from various areas of expertise such as aerial
20 photointerpreters who would do the initial corridor
21 selection, ground locators who would flag the
22 alternative corridors for the locations for those
23 corridors, it would involve the final route marking by
24 qualified road construction personnel and, again, a
25 final approval of the location by the company logging

1 engineer.

2 Q. Can you outline for the benefit of
3 the Board the evidence on pages 9 and 10 of your case
4 study regarding the factors considered in locating
5 roads?

6 A. Yes. Page 9 refers to the primary
7 factors which we would look for when locating a road.
8 Those primary factors being; deep soils, level terrain,
9 the presence of gravel material and trying to follow as
10 best we can the existing contours of the terrain.

11 The consideration of these factors will
12 often minimize impacts due to construction, as
13 following these parameters often limit any kind of a
14 disturbance. It is also a general rule, along with
15 minimizing some of these impacts, the good road
16 locations almost always will lower the construction
17 costs and help to keep down long-term maintenance
18 costs.

19 In regards to this I would like to refer
20 the Board to the Environmental Guidelines for Access
21 Roads and Water Crossings, Exhibit No. 683, in which we
22 refer from our case study to some of the points which
23 are highlighted on page 13.

24 Q. That's page 13 of Exhibit 683?

25 A. Yes, that's correct, Mr. Cassidy.

1 Section 5.2 outlines some of the practices of which we
2 will look for when locating our roads. These would
3 include avoiding hilly terrain with steep grades, areas
4 with insufficient gravel, deep swamps, bedrock,
5 erodible soils and shallow soil areas.

6 As well as for environmental as well as
7 practical considerations road landings should try and
8 follow the contours of the land, long sustained grades
9 should be avoided as much as possible, and we prefer to
10 identify sources of material for road construction and
11 try to locate the roads somewhat close to these sources
12 in order to minimize the haul, the hauling distance.

13 Q. Are those the types of practices that
14 were followed in the case study area?

15 A. Yes, they would be, Mr. Cassidy.

16 Q. Are those the types of practices
17 that, Mr. Wright, the Industry companies have followed
18 in minimizing impacts?

19 MR. WRIGHT: A. Yes, they are, Madam
20 Chair.

21 Q. And are there any other factors that
22 were considered in the locating, Mr. Perry?

23 MR. PERRY: A. Yes, there were. We
24 would try to locate the road through existing timber
25 volumes and to have the road so as not to impede on any

1 identified waterbody values.

2 Q. And could you describe the other
3 values, or the identification of the other values that
4 occurred in the case study area?

5 A. There were two other values which
6 were identified in the case study area in the
7 construction of the Ivy/Kelso Road. Those two values
8 were the watercrossings which I can point out here and
9 that Swallow -- or these Swallow crossings here and
10 here, the two water crossings.

11 Q. You say swallow crossings?

12 A. Swallow Creek which is south of
13 Swallow Lake and the Kitten Creek south of Randy Lake.

14 These two water crossings were
15 constructed by using a bridge form and the Ministry of
16 Natural Resources, with consultation with our company,
17 had identified a fisheries value in both of those lakes
18 and, therefore, we moved the bridges south away from
19 those lakes so as to limit access into those lakes to
20 try to limit the fisheries pressure due to that access.

21 Q. All right. And finally I understand
22 you wish to speak to the Board about the use of the
23 access roads for other activities?

24 A. Yes. Page 11 of our case study,
25 which I referred to earlier, outlines the maintenance

1 that is still being done today in regards to the
2 removal of wet-cone poplar and the monitoring of any
3 problem beaver which we do annually.

4 We have the road maintained for
5 monitoring the plantations and for doing any other work
6 on the plantations in the surrounding areas of the case
7 study and the case study itself.

8 Q. And are these roads used by other
9 users?

10 A. Yes, they are, they are extensively
11 travelled by other users.

12 Q. If I can just have your indulgence.
13 Mr. Perry, where do you live?

14 A. I live and work in Ramsey.

15 Q. Where is that in relation -- on
16 Exhibit 1112 in relation to Sudbury?

17 A. On Exhibit 1112 Ramsey is located
18 here, approximately in the centre of the three E.B.
19 Eddy FMAs.

20 Q. And how far is that from Sudbury?

21 A. Well, approximately about 120 miles.

22 Q. And what is the population of Ramsey?

23 A. About 175.

24 Q. Thousand?

25 A. 175.

1 Q. All right.

2 MR. CASSIDY: Those are my questions,
3 Madam Chair, for this panel.

4 The only other matter I wish to bring to
5 your attention was a matter which I have not dealt with
6 in terms of the scoping session. You will recall that
7 you and Mr. Martel asked about the ability of -- the
8 production of a map showing the total forest access
9 road network in the province or area of the undertaking
10 I believe.

11 I can advise, Madam Chair, that we are
12 unable to assist you in providing you with such a map
13 and, therefore, I will be unable to provide you with an
14 answer on that.

15 And I have spoken to counsel for MNR and
16 I propose to let them deal with speaking to you on that
17 matter, Madam Chair. I can advise the reason is that
18 we just simply do not have; that is, our clients do not
19 have access to that type of information on the scale
20 you requested.

21 MADAM CHAIR: Thank you, Mr. Cassidy.

22 One thing, Mr. Cassidy. Several times
23 Mr. Murray referred to Exhibit 682 and I think he meant
24 683 but I'm not sure. I think he was referring to the
25 Guidelines for Access Roads and Water Crossings.

1 MR. MURRAY: Madam Chair, most of the
2 information that I was referring to was contained in
3 both of them and, unfortunately, I have made reference
4 to both of them.

5 MADAM CHAIR: 682 and 683?

6 MR. MURRAY: That's correct. 682 of
7 course has the mandatory -- is the guidelines. The
8 evidence submitted by the Ministry was in effect that
9 evidence referring itself to.

10 MADAM CHAIR: All right.

11 MR. CASSIDY: Well, 682 is Panel 14, Mr.
12 Murray, and 683 is the guidelines. And when you were
13 citing quotes from Mr. Adamson's testimony, you were
14 referring to Exhibit 682; is that correct?

15 MR. MURRAY: That would be correct. When
16 I was referring to the quotes and when I read from, it
17 was from 682.

18 MR. CASSIDY: All right, thank you.

19 Thank you, Madam Chair.

20 MS. BLASTORAH: Madam Chair, just briefly
21 on the issue of the overview of access for the entire
22 area of the undertaking. Mr. Cassidy has indicated his
23 client is not in a position to provide that
24 information.

25 I have spoken to my client about it and

1 they are currently looking into the possibility of
2 providing some type of mapping in that form. I am not
3 able -- I have no instructions at this time as to
4 whether or in what form that might be possible, but I
5 will get back to the Board on that in future. My
6 client is looking into it.

7 MADAM CHAIR: Thank you very much.

8 Mr. Hanna?

9 MR. HANNA: Madam Chair, if I can just
10 have three or four minutes to get my papers together.
11 It will just take a second.

12 MADAM CHAIR: We will take a 10minute
13 break then.

14 MS. BLASTORAH: Madam Chair, can I ask
15 whether you are planning to break at all for lunch
16 today?

17 MADAM CHAIR: We certainly are. Would
18 twelve o'clock be convenient for you, Mr. Hanna?

19 MR. HANNA: I am at your leisure. That
20 will be fine.

21 MADAM CHAIR: That would give you close
22 to an hour in the first part of your cross-examination.

23 MR. HANNA: That's fine. My
24 cross-examination is broken up in a fairly large number
25 of discreet parts, so it is quite convenient for me to

1 break at any point.

2 MADAM CHAIR: All right. We will take an
3 hour for lunch from twelve until one.

4 MR. CASSIDY: And will we be breaking at
5 three o'clock today, Madam Chair?

6 MADAM CHAIR: Yes. We might be able to
7 go a few minutes beyond 3:00, but in order to catch the
8 4:10 flight, it would have to be close to that.

9 MR. CASSIDY: Thank you.

10 ---Recess taken at 10:50 a.m.

11 ---On resuming at 11:05 a.m.

12 MADAM CHAIR: Please be seated.

13 Mr. Hanna, just one short announcement
14 before you start.

15 The Board wants to ensure that our court
16 reporters, Beverley Dillabough and Marilyn Callaghan,
17 will be able to get home for their Easter break, and so
18 there will be a delay in producing the transcripts next
19 week.

20 Thank you.

21 MR. HANNA: Good morning, Madam Chair and
22 Mr. Martel, panel.

23 My cross-examination is divided into a
24 series of sub-topics. I won't list them all at this
25 time, but I will just give you a general idea of the

1 major topics that I will be dealing with.

2 First of all, I would like to review
3 briefly with the witnesses their current experience and
4 understanding with the access planning procedure
5 proposed by the Ministry of Natural Resources and how
6 that relates to what is proposed by the forest
7 industry.

8 I then have a series of questions dealing
9 specifically with the witness statement Panel 5,
10 Exhibit 1116, and then I have some questions that carry
11 over from the Ontario Federation of Anglers & Hunters
12 cross-examination of Panel 14 of the Ministry of
13 Natural Resources that I would like to obtain the views
14 of this panel on.

15 So those are the major subject areas that
16 I'll be dealing with.

17 MR. CASSIDY: Perhaps with respect to the
18 third matter it might be appropriate to provide the
19 witnesses with transcript references. We are going to
20 break in an hour and it would be probably to the
21 Board's benefit if the witnesses had the opportunity to
22 read them. I have the transcripts here, Mr. Hanna, so
23 that if you can provide me with those numbers, I can
24 give them to them now and review it over the break.

25 MR. HANNA: I won't be referring

1 specifically to the transcripts, Mr. Cassidy, but I can
2 tell you the general topics and where it's found in the
3 transcripts, if that's helpful to you.

4 MR. CASSIDY: I appreciate that.

5 Madam Chair, one last matter. It's my
6 intention to the best of my ability to complete my
7 cross-examination today.

8 MADAM CHAIR: Thank you, Mr. Hanna.

9 CROSS-EXAMINATION BY MR. HANNA:

10 Q. Panel, first I have a series of
11 questions that deal with the general experience of you
12 individually and I am going to go through each member
13 of the panel and ask for some clarification on these
14 matters, and I would like to explore with you what your
15 experience is specifically with respect to access
16 planning and construction.

17 And perhaps I will start just at the end
18 of the panel, Mr. Zorn, and work down to the other end.

19 Have you been involved in preparing a
20 timber management plan and, in particular, the access
21 component of a timber management plan using the
22 proposed timber management planning procedure presented
23 by the Ministry of Natural Resources at this hearing?

24 MR. ZORN: A. No, Mr. Hanna. My
25 contribution to the timber management plan is expertise

1 in road location and road corridors and so on.

2 Q. The implementation.

3 A. Just implementation.

4 Q. Yes. Now, as part of that
5 implementation, have you been involved in the detailed
6 design of the access system once a general corridor has
7 been developed and whatever, have you been involved in
8 the detailed design of the access system itself?

9 A. Yes. Personally I have located many
10 miles on the ground and with all the alternate
11 corridors and have made proposals where to change
12 routes.

13 Q. Okay. And would this include, for
14 example, estimating, tendering, construction drawings
15 where necessary, application of appropriate guidelines
16 and manuals for primary, secondary and tertiary road
17 systems?

18 A. Primary and secondary road systems,
19 that's correct.

20 Q. And I think you have actually been
21 involved in the construction of these roads at various
22 times throughout your career?

23 A. Yes, many years.

24 Q. You have been involved in
25 construction supervision in the actual on-the-ground

1 flagging and carrying the road right through to its
2 final completion?

3 A. That's correct, Mr. Hanna.

4 Q. Are you currently involved in this
5 type of exercise?

6 A. Not as much as I would like to, but I
7 am still involved. I am more or less in the advisory
8 capacity, but road construction is still one of my main
9 subjects.

10 Q. Mr. Perry, have you been involved in
11 preparing a timber management plan, in particular, the
12 access component of a timber management plan using
13 the proposed timber management planning procedure
14 presented by the Ministry of Natural Resources at these
15 hearings?

16 MR. PERRY: A. I have not been involved
17 in the actual planning process as you say it, Mr.
18 Hanna, no, it's more of an advisory on-the-ground
19 background.

20 Q. You have been involved in the
21 detailed design of the forest access system once the
22 corridors have been selected and that sort of thing in
23 a timber management plan?

24 A. Yes, I have.

25 Q. And would this include estimating,

1 tendering, construction drawings where necessary,
2 application of appropriate guidelines and manuals for
3 primary, secondary and tertiary road systems?

4 A. All but the tendering, yes, I have.

5 Q. You have been involved in the
6 tendering process as well?

7 A. No, I have not as we have no
8 contractors on our FMA and we build all our own roads
9 which means we make all our own budgets, but we don't
10 actually have to write a tender out for a contract.

11 Q. So those elements that would be a
12 component of the tender document you would have
13 responsibility for, but you haven't gone through the
14 formal process of the tendering exercise because you
15 don't using private contractors?

16 A. Yes, that is correct.

17 Q. And I take it you have been involved
18 in the actual construction of the various classes of
19 roads?

20 A. Yes, I have.

21 Q. On the ground?

22 A. Yes, I have.

23 Q. Including such things as road
24 location, satellite flagging, et cetera?

25 A. Yes, that is correct.

1 A. Yes, that is correct.

2 Q. And are you currently involved in
3 these activities?

4 A. I am, yes, although not as I was in
5 my earlier capacity as I now have more responsibility
6 for other things, but I am in complete charge of the
7 actual road construction projects for our district.

8 Q. So that is what you meant by being
9 more in a advisory capacity?

10 A. Yes.

11 Q. Mr. Gemmell?

12 MR. GEMMELL: A. Yes, sir.

13 Q. Have you been involved in preparing a
14 timber management plan, in particular, the access
15 component of a timber management plan using the
16 proposed timber management planning procedure presented
17 by the Ministry of Natural Resources at these hearings?

18 A. I have been part of a planning team,
19 yes.

20 Q. And is that the case study that you
21 have presented evidence on which you were involved
22 with?

23 A. Yes, and most recently another camp
24 area.

25 Q. And what was your responsibility on

1 the planning team?

2 A. Operationally planning the road, the
3 general layout of the road, where the access should
4 take place to harvest the timber. The forestry
5 department handles the fine detail work that is
6 submitted to the Ministry. In other words, I indicate
7 the operational aspects and work with the forestry
8 department to prepare the final draft.

9 Q. I see. So they do the drafting
10 component of it, you provide the technical advice?

11 A. That's right. I produce a rough
12 draft and then deal with them in preparing the final
13 plan layout.

14 Q. And when was this plan prepared and
15 approved?

16 A. The most recent?

17 Q. Well, the one that you are referring
18 to, yes.

19 A. There is a plan presently in the
20 process of being approved.

21 Q. Has there been one -- excuse me, has
22 there been one approved prior to that?

23 A. Yes, yes, there has been. Yes,
24 that's correct.

25 Q. When was that approved?

1 A. There has been a plan for 1980-85,
2 1985-90 and presently 1990-1995.

3 Q. And the '85 one would be following,
4 for all intents and purposes, the planning process that
5 has been presented here?

6 A. I don't know if -- the processes
7 which were in place at the time in 1984, that is...

8 Q. Have you been involved in the
9 detailed design of a forest access system using the
10 proposed MNR approach?

11 A. Well again, yes.

12 Q. I am talking about now after the plan
13 is approved, and remember once the plan is approved you
14 have got corridors and whatever identified then you
15 have the actual detailed design following that on an
16 annual basis.

17 A. The present plan has not been
18 approved, so there has been nothing subsequent to that.

19 Q. But I am talking about the '85 plan
20 now.

21 A. I think the system of corridor
22 selection has not been used to the extent that it is
23 now.

24 Q. Okay. So the '85 plan didn't have
25 that, the corridor type of --

1 A. It had alternatives, it had areas of
2 concern.

3 Q. Yes.

4 A. It had that kind of detail, but not
5 to the extent that it exists now.

6 Q. Do your responsibilities include
7 matters such as estimating, tendering, construction
8 drawings where required, application of appropriate
9 guidelines and manuals for primary, secondary and
10 tertiary roads?

11 A. Partially, partially. If you want to
12 go through each item I could answer more carefully.

13 Q. I am not sure I need an elaborate
14 description. Is there something you clearly don't do?

15 A. I don't tender, that is one example.
16 We build our own roads, otherwise quite involved in
17 what you are asking, yes.

18 Q. And have you been involved in the
19 actual construction of primary, secondary and tertiary
20 roads on the ground?

21 A. Yes, to a limited extent. I am at
22 the assistant superintendent level, so it's an
23 overseeing job, although I have been on the ground
24 laying out certain features.

25 Q. And given the examples where that

1 would occur given the kind of responsibilities you just
2 said you had, what sort of features have been on the
3 ground?

4 A. Like laying out a bridge crossing,
5 aligning a bridge crossing, being quite involved as the
6 bridge was being constructed.

7 Q. Mr. Wright, have you been involved in
8 preparing a timber management plan and particularly the
9 access component of the timber management plan using
10 tge proposed timber management planning process
11 presented by the Ministry of Natural Resources at these
12 hearings?

13 MR. WRIGHT: A. Yes, I have. I have
14 prepared two access components, I have prepared the
15 access components on two different timber management
16 plans for the Pineland Forest. I am in the process of
17 preparing my third access components.

18 Q. Is the Pineland Forest one FMU or
19 more than one FMU?

20 A. It's one FMU.

21 Q. When you say you had -- it's two
22 occasions, how do you mean two occasions; two occasions
23 within that FMU?

24 A. Yes.

25 Q. When was the timber management plan

1 for the Pineland FMU prepared and approved?

2 A. The first one was approved in 1983,
3 retroactive to '82. The second one was approved in
4 1987 for the 87-92 period.

5 Q. And those were the two that you were
6 involved in?

7 A. Yes, that's correct.

8 Q. Now, have you also been involved in
9 the detailed design of the forest access system once
10 the timber management plan has been approved?

11 A. Yes, I have.

12 Q. And would this include such things as
13 estimating, tendering, construction drawings where
14 necessary, application of appropriate guidelines and
15 manuals, et cetera, for primary, secondary and tertiary
16 roads?

17 A. Yes, where appropriate, yes.

18 Q. And you have been involved on the
19 ground in terms of construction of various classes of
20 forest access road?

21 A. That is correct.

22 Q. And will this include such things as
23 construction supervision, cost control inspection and
24 audits and such things using the centre line location,
25 flagging?

1 A. Yes, that's correct.

2 Q. Mr. Johnston. Rather than read all
3 the questions through, is there anything different that
4 you have done or that you want to add in terms of those
5 set of questions?

6 MR. JOHNSTON: A. Yes, Mr. Hanna.
7 Before I became a supervisor I was an equipment
8 operator and I was responsible for physically handling
9 materials and building roads with equipment. I owned a
10 piece of construction equipment which I rented to the
11 company at one time and was responsible for choosing
12 soils et cetera to construct the roads.

13 I did the layout, as everybody else
14 described to you. I became a road construction foreman
15 and was responsible for road construction in the
16 Nipigon District.

17 Other than that, I am not any different
18 than the other members of my panel. I have no
19 experience that would tend tender as we build all other
20 <OUPB> <*R> our own roads.

21 Q. Thank you, Mr. Johnston. Mr. Murray,
22 I will give you the opportunity to --

23 MR. MURRAY: A. Same questions.

24 Q. Yes.

25 A. Mr. Hanna, my situation is somewhat

1 different than the others in that I am representing an
2 area that is on a Crown management unit, therefore,
3 would not be responsible for assisting in the creation
4 of a timber management plan.

5 There was a timber management plan in
6 place in the Bracebridge Crown management unit and
7 there was an operating plan. The operating plan
8 covered the period 1985-90 and it was under that plan
9 that the case study area was working at the time.

10 The plan was in preparation in the period
11 1980-85 and, as you may be aware, I was with the
12 predecessor company of G.W. Martin and we did have -
13 and I say we, the forestry people and myself - I was in
14 a management position but responsible for both
15 forestry, woodlands and mills and we did have
16 discussions with the Ministry of Natural Resources with
17 regard to the proposed operating areas and roads, et
18 cetera.

19 Q. Okay. With respect to actually what
20 you are telling me, as I understand, is that because it
21 was a Crown management unit the timber management
22 planning itself was actually conducted by the Ministry
23 of Natural Resources?

24 A. That's correct.

25 Q. Now, in terms of the actual roads

1 themselves, what was your responsibility? Once the
2 timber management plan was approved and was set out,
3 what was your responsibilities as an industry employee
4 at that time?

5 A. Well, as manager of the facility in
6 Huntsville, I ultimately had the responsibility for
7 ensuring that the road planning program and the road
8 construction program was conducted to meet the
9 requirements of the harvesting operations.

10 Q. So this includes on-the-ground
11 activities including construction supervision,
12 inspection and audits and even such things as centre
13 line flagging?

14 A. Being a forester who was in a
15 management position I like to get out in the bush and,
16 yes, I did do all those things on a selective basis,
17 not on a mandatory basis.

18 Q. As often as your employer would let
19 you get out there.

20 A. As often as I could sneak out, I
21 would be there.

22 MR. CASSIDY: A new meaning to selection
23 management.

24 MR. HANNA: Q. Now, Mr. Wright, I
25 understand that you are - the term that has been used

1 in these hearings - you are the quarterback of this
2 panel, and I would like to ask you a question that
3 deals with all of your panel members and; that is, is
4 the expertise that we see in your panel representative
5 of the type of expertise that you would expect within
6 the area of the undertaking that would be offered by
7 the forest industry in terms of access roads, planning
8 and construction?

9 MR. WRIGHT: A. Well, I can only venture
10 my opinion on this--

11 Q. That's fine.

12 A. --certainly not the opinion of the
13 industry, but I do believe this is a representative
14 cross-section of what is available to do the planning
15 and the actual field construction of the roads in the
16 province.

17 Q. Thank you. I would like now to start
18 again with Mr. Zorn and I have one last set of
19 questions here and I would like to ask each of the
20 members of the panel these set also.

21 First of all, Mr. Zorn, have you received
22 any specific training in terms of environmental impacts
23 associated with forest access roads?

24 MR. ZORN: A. Yes, Mr. Hanna. I
25 attended water crossing sessions with the MNR and I

1 attended sessions and seminars and courses that were
2 put on in earlier years by Professor Patterson at U of
3 NB for several years in the early 80s.

4 As far as environmental concerns are
5 concerned, I was also part of putting together the
6 guidelines for access roads and water crossings.

7 Q. Yes, I am familiar with your
8 involvement with the guidelines. I didn't note however
9 in your resume any reference to that sort of training.
10 Can you direct me to where that is indicated, the
11 training that you received in your resume?

12 MR. CASSIDY: Well, Madam Chair, perhaps
13 I can assist. The resumes are - and I can tell you
14 this is the case with respect to every panel - that the
15 resumes are not intended to be exhaustive.

16 If Mr. Hanna wants us to produce 50-page
17 resumes we will of each party -- of each witness, but
18 we thought we would try and cut down on some of the
19 paperwork here, and if there is going to be a challenge
20 about the qualifications, then we should be advised
21 prior to the witnesses being qualified.

22 If everybody wants 50-page resumes we are
23 going to end up with witness statements which are far
24 longer than I think this Board needs, and the purpose
25 of the resumes we thought was to give an overview of the

1 witnesses' qualification, such that if there is a
2 concern you can raise them.

3 However, I am content to have the witness
4 answer any questions about the resumes or about their
5 other background which may not be in there, recognizing
6 that these are not intended to be exhaustive.

7 MR. HANNA: Madam Chair, there is two
8 matters that raises. First of all, I am sympathetic to
9 Mr. Cassidy's view that we should minimize paper in
10 this hearing, and I will do everything to support him
11 in that respect.

12 I do however feel that this is important
13 information and I understand that you are always faced
14 with trying to distill out of someone's experience that
15 goes back 30 years or whatever what is relevant and
16 what isn't relevant.

17 The reason I have asked these questions
18 is because one of the concerns that my client has
19 raised at these hearings in the past is the level of
20 training experience that interests involved in the
21 forest management planning process have, and it's for
22 that reason that I was looking specifically at the
23 resume and I would have thought that was a specifically
24 important item to consider. But I certainly accept my
25 friend's views about trying to make the information as

1 concise as possible.

2 The second matter he raised was that of
3 challenging the witnesses. I want to make it very
4 clear that I'm not challenging the witnesses. I have
5 no intent of challenging any of these witnesses.

6 The reason for these questions is
7 twofold: First of all, to provide the Board with some
8 basis and terms to define a weight to the opinions that
9 these experts are putting forward; and second of all,
10 as I've indicated already, the matter of this panel
11 is - and I believe that's why I asked the question of
12 Mr. Wright - representative of the level of expertise
13 and training of the people that we have in the field
14 conducting these forest access roads, and I'm
15 interested in exploring in more detail what that
16 training experience might be and that's why I've asked
17 the question.

18 I think in that respect I see it quite
19 relevant to the interests of my client.

20 MR. CASSIDY: I have no objection if it's
21 framed in that fashion. My concern was there was some
22 suggestion that there was some problem with it not
23 being in the resumes which, in my respectful
24 submission, is irrelevant.

25 MR. HANNA: But it's...

1 MR. CASSIDY: Otherwise I have no
2 objection to the question.

3 MADAM CHAIR: Please proceed, Mr. Hanna.

4 MR. HANNA: Q. Mr. Zorn, can you tell me
5 when you last received specific training dealing with
6 environmental impacts associated with forest access
7 roads and who provided that training and what it
8 consisted of?

9 MR. ZORN: A. Mr. Hanna, if my memory
10 proves to be correct, it was some time last November
11 when we attended a one-day seminar put on by Mr.
12 Adamson from the MNR, the regional engineer, and he
13 went in detail over water crossing policies, how to
14 install culverts properly and was demonstrated and
15 shown on slides.

16 Q. That seminar then dealt with
17 basically an interpretation of how the environmental
18 guidelines, Exhibit 683, should be applied in the
19 field?

20 A. That's correct, Mr. Hanna.

21 Q. What about dealing with terrestrial
22 impacts on matters such as wildlife? Can you tell me
23 if you've had any training experience in that?

24 A. I do not have any direct training
25 experience. I am a hunter myself and have been for 40

1 years, but my earlier training in the old country where
2 hunting was a part of the job and I have received quite
3 a respect of protecting nature.

4 Q. I understand that. I was not in any
5 way suggesting you were otherwise.

6 Now, in terms of economic evaluation of
7 access, have you had training in looking at the
8 economics of access alternatives and attempting to
9 evaluate costs and benefits of access?

10 A. My part in the planning and the
11 evaluations of alternate corridors has mainly been
12 putting factors on each section of the road, what is
13 involved in tractor hours or determining what is the
14 difference in cost; does this cost 20 per cent more,
15 this 20 per cent less.

16 Q. Cost accounting?

17 A. Cost accounting.

18 Q. Mr. Perry, I would like to know what
19 training you've received in terms of environmental
20 impacts associated with access?

21 MR. PERRY: A. My most recent training
22 would have been in March of this year by the Ministry
23 of Natural Resources at a seminar in which they
24 presented the Environmental Guidelines for Access Roads
25 and Water Crossings and summarized how they would

1 like -- have the guidelines apply.

2 Q. So this would be comparable to what
3 Mr. Zorn has described?

4 A. Yes, that is correct.

5 Q. What about dealing with terrestrial
6 concerns?

7 A. Yes, there was some of those concerns
8 addressed at that seminar also.

9 Q. What kind of concern?

10 A. Like in regards to the moose
11 guidelines and to the fisheries guidelines. Outside of
12 that I had not taken any formal training, although --
13 in that area, although I am a hunter myself and an
14 outdoorsman.

15 Q. I am happy to see the makeup of the
16 panel.

17 A. And a member of the OFAH.

18 Q. Even better.

19 A. In good standing.

20 ---Discussion off the record

21 MR. HANNA: Q. With respect to economic
22 evaluation of access and access construction, can you
23 tell me what experience you've had in that respect?

24 MR. PERRY: A. I have had hands-on
25 experience in preparing a majority of the budgets for

1 both the primary, secondary and the tertiary road
2 construction projects over the past 10 years.

3 Q. Estimating and cost control?

4 A. Yes, that is correct.

5 Q. What about economic evaluation of
6 non-timber values?

7 A. To some minor extent, yes, I have.

8 Q. What is that minor extent?

9 A. In regards to the AOCs, some tourist
10 outfitters and things like that or a heron area.

11 Q. Mr. Gemmell, I believe you have
12 indicated to us that your day-to-day activities are not
13 as field oriented as they have been in the past?

14 MR. GEMMELL: A. They are quite field
15 oriented. I am at camp three days a week, so that is
16 very close to the field.

17 Q. Okay. Can you tell me what training
18 you have had in terms of the environmental effects of
19 access?

20 A. Mr. Adamson has done a very good job
21 across the province, we have all attended his courses
22 and there was also in the last year a fish and wildlife
23 seminar which I attended, I think it was on moose
24 guidelines, and also there was an MNR biologist there
25 discussing fish management, crossings in terms of

1 culverts and...

2 Q. Do you see this as a normal part of
3 your responsibilities?

4 A. Certainly.

5 Q. This sort of training?

6 A. Absolutely.

7 Q. Have you experience in economic
8 evaluation of access projects?

9 A. I plan and budget the roads at the
10 camp level.

11 MS. BLASTORAH: Excuse me, could I ask
12 Mr. Gemmell to speak up, I am having trouble hearing
13 him.

14 MR. GEMMELL: I plan and budget for the
15 road construction program for the camp area.

16 MR. HANNA: Q. I noted in your resume
17 that you've actually attended a course on forest
18 economics put on by the Ontario Professional Foresters
19 Association; is that correct?

20 A. That's correct, many, many years
21 ago. I don't think I recall the date.

22 Q. The date is not indicated. You also
23 indicate in your resume in 1984 you had computer
24 training in IFPS, interactive financial planning
25 system, a computer language used for economic

1 evaluation?

2 A. That's correct, but I have not used
3 it.

4 Q. You had training but you didn't use
5 it?

6 A. That's correct.

7 Q. Not all training is useful. But you
8 have a concept of economic evaluation, discount rates,
9 time horizons, that sort of thing?

10 A. I have a concept of it but I don't
11 use it.

12 Q. What about the use of economic
13 evaluation techniques to deal with non-timber values,
14 do you have any experience in that?

15 A. Not in terms of how you put it. I
16 suppose we deal with it in terms of, as Mr. Perry said,
17 when there is a concern, then we have to evaluate what
18 it's going to cost to build an alternative.

19 Q. Right.

20 A. That's the type of cost evaluation we
21 would do.

22 Q. Because your particular resume seemed
23 to have more dealings with forest economics than some
24 of the others, I would ask you this question and; that
25 is, when you are looking at cost alternatives for

1 access roads and comparing those against other costs,
2 what sort of time horizon do you discount and, if you
3 will, amortize those costs over?

4 A. I don't. My economic analysis is
5 based annually on a road construction basis for a camp
6 operation. So as far as discount, there is no discount
7 involved because our budget is to construct roads on an
8 annual basis.

9 Q. Mr. Wright, tell me what training you
10 have received in terms of the environmental impacts
11 associated with forest access?

12 MR. WRIGHT: A. Yes. I have attended
13 Mr. Adamson's course on water crossings.

14 Q. He is going to be pleased to hear
15 this when he reads the transcripts.

16 A. And I've also attended a workshop
17 this year on -- a workshop on areas of concern put on
18 by the Ministry of Natural Resources in Timmins.

19 Q. Sorry, could you...

20 A. In Timmins.

21 Q. When was that workshop,
22 approximately?

23 A. Late February, early March I think.

24 Q. Without going into a lot of detail,
25 can you just briefly tell me what was covered in the

1 AOC workshop?

2 A. What was covered in the AOC workshop
3 mainly was the alternative corridors and the
4 documentation required for the alternative corridors by
5 the MNR.

6 Q. So it was process-oriented rather
7 than, if I can use the word, field-oriented in terms of
8 what to look for on the ground?

9 A. Yes, it was process-oriented, but in
10 order -- the people who were there had the field
11 experience. You couldn't do the process without having
12 the field experience.

13 Q. Yes, I accept that.

14 Can you tell me what experience you have
15 had in the economic evaluation of access projects in
16 evaluating alternatives?

17 A. Yes. In my formal education I have a
18 degree in forest engineering, I've taken analysis
19 courses, I've taken statistic courses and I am vaguely
20 familiar with the present value analysis, although I
21 don't claim to be an expert at that, but I -- and I do
22 all the analyses of our road corridors for our company.

23 Q. Just for the rest of the members of
24 the panel, I am not in any way hoping that someone here
25 is going to give me a detailed diacourse on --or

1 diatribe on economic evaluation, whatever.

2 I am just trying to get a general sense
3 of the level of training and expertise, that's the
4 purpose of these discussions. I am not trying to lead
5 you into a discussion on economic evaluation.

6 Mr. Wright, have you been involved in
7 economic evaluations of non-timber values?

8 A. I have been involved at the planning
9 team level. And while the forest industry member on
10 the planning team might not have the knowledge to do an
11 evaluation on another value, somebody on that planning
12 team does have that knowledge to do that evaluation.

13 It's the planning team that comes up with
14 the evaluation, not just the forest industry. So
15 someone on that team will have the expertise that
16 should be there.

17 Q. Yes. We've heard quite a bit about
18 planning teams, so I think the Board is aware of that.

19 Mr. Johnston, I gave you the opportunity
20 the last time, rather than to repeat the questions, to
21 add or subtract anything that you wished from the
22 answers to the others. Can I repeat that now.

23 MR. JOHNSTON: A. Thank you, Mr. Hanna.
24 Well, I too attended the presentation by Mr. Adamson
25 and it was a very good presentation and I requested

1 that presentation be repeated at our company operation
2 at Camp 230, one of our live-in camps and he presented
3 that bridge and water crossings presentation to our
4 supervisor that was there and to all of our operators
5 who were involved in the discussion.

6 We are presently on a one-month shutdown
7 and we are requesting that he repeat that presentation
8 to all the supervisors at Abitibi-Price in the Lakehead
9 during this one-month shutdown.

10 Q. Do you feel this sort of training and
11 experience is valuable to your employees?

12 A. I think it's valuable. It makes a
13 lot of common sense and it's something that we will
14 have to learn to live with and we will.

15 Q. So you see it as a normal, if you
16 will, expense or inconvenience of doing business?

17 A. It's not an inconvenience, Mr. Hanna,
18 it's just a matter of adjusting the way we build roads.

19 Q. Okay. Mr. Murray, have you anything
20 additional to add?

21 MR. MURRAY: A. Last but not least, and
22 I did not attend Mr. Adamson's class.

23 Q. Oh, no.

24 A. As you're aware, anything that I
25 would have been involved with would have been with my

1 employer and that preceded mid-1985.

2 All I can tell you is that as a
3 professional forester I did maintain a level of
4 upgrading and continuing education to keep myself
5 informed of what was going on in that particular
6 aspect.

7 And during the years when I was involved
8 in the access aspect of the harvesting and forest
9 activities, we encouraged and did arrange to have
10 meetings, both in the field and in the office with
11 Ministry of Natural Resources people and we had
12 meetings in the field with biologists, our own staff
13 and supervisors, foremen staff and discussed these
14 problems and they would transmit to us the current
15 feelings and concerns of the Ministry. But no formal
16 training programs were carried out.

17 Q. Well, Mr. Adamson now has a candidate
18 for his own little examination, but I appreciate what
19 you've said, I don't mean that in a pejorative way.

20 Just a few minor details here just for
21 completeness. Mr. Murray, in your resume, which is
22 included in Exhibit 1100, the Panel 4 witness
23 statement, you indicated that you received a Bachelor
24 of Science and Forestry Degree from the University of
25 New Brunswick. Can you just tell me when you received

1 that?

2 A. 1952.

3 Q. You predated Dr. Baskerville?

4 A. That's correct.

5 MR. CASSIDY: And me.

6 MR. HANNA: Me too.

7 Q. And, Mr. Wright, you indicate that
8 you have a degree in forest engineering from the
9 University of New Brunswick; correct?

10 MR. WRIGHT: A. That's correct.

11 Q. I didn't see that you had any
12 affiliations with either the Ontario Professional
13 Foresters Association or the Association of Professional
14 Engineers of Ontario. Can you confirm that?

15 A. Yes, that's correct.

16 Q. Is there a reason for that?

17 A. Just haven't done it. I intend to
18 before my career is over, but I just haven't done it
19 yet.

20 Q. Mr. Zorn, in looking at your resume I
21 didn't see any professional affiliations either. Is
22 that an oversight or is that basically --

23 MR. ZORN: A. Like Mr. Wright, I do not
24 have any.

25 Q. Going down the panel here. Mr.

1 professional affiliation; is that correct?

2 MR. PERRY: A. Yes, that is correct.

3 Q. Now, Mr. Johnston, you did however
4 indicate some professional affiliations on page 17 of
5 the witness statement, Exhibit 1116; correct?

6 MR. JOHNSTON: A. That's correct.

7 Q. Do any of the organizations listed
8 there have a minimum qualification requirement with
9 respect to forest management training and experience in
10 particularly access planning?

11 A. Nothing for access planning, but
12 being a member of NOLTA required a person who is
13 familiar with trucking in northwestern Ontario and the
14 training of operators.

15 Q. You will be happy to know I am
16 finished now with the resumes. It's always an
17 unpleasant part of these exercises, so you can relax as
18 far as I am concerned.

19 I would like now to move to another
20 subject. I believe, Mr. Zorn, you made this statement
21 this morning and perhaps you can just refresh my memory
22 to specifically what you said. I have written down
23 that Mr. Cassidy was speaking to you about the
24 difficulty of having 250-metre corridors. Do you
25 recall that?

1 recall that?

2 MR. ZORN: A. Yes, Mr. Hanna.

3 Q. And you indicated that if this was to
4 be complied with that it would take three years of work
5 to lay out the road corridor; is that correct?

6 A. That is correct.

7 Q. Can you just explain to me exactly
8 what you were referring to there in terms of the burden
9 that you had envisaged; what component of the planning
10 process and what that implies to you as an access
11 planner or implementer?

12 A. In earlier discussions this panel had
13 months ago we came up with a routine figure that it
14 takes almost a man day, one man crew day to locate one
15 mile of road properly. In the case of our company, in
16 a five-year period we probably will be constructing up
17 to 500 kilometres of various access roads: primary,
18 secondary or even enhanced tertiary roads.

19 If you apply that figure one crew day,
20 that means a man leading and the other following and
21 hanging ribbons, you have 500 man days. And a
22 250-metre corridor is not very wide, one would have to
23 be very sure that the road could go in on the ground at
24 that particular narrow area.

25 Q. And you say this would have to be

1 done in order to comply with the timber management
2 planning procedure?

3 A. That's correct, and it would have to
4 start almost three years ahead of when the timber
5 management plan starts.

6 MR. CASSIDY: I want to clarify something
7 here. The timber management planning procedure, as
8 presently stated by MNR, I believe talks about
9 500-metre corridors. Mr. Zorn was very clear in
10 referring to 250-metre corridors.

11 So I don't want Mr. Hanna to be confused
12 or I don't want these questions to confuse the Board.
13 He is not referring to the 500-metre corridor
14 discussion which is in the -- or outline that's used in
15 the present process, he is referring to a 250-metre
16 corridor.

17 MR. HANNA: Thank you for that
18 clarification, Mr. Cassidy.

19 Q. Mr. Zorn, why were you referring to a
20 250-metre corridor? What is the source of that
21 concern? Was it proposed by someone or --

22 MR. ZORN: A. Yes, I think it was
23 proposed, I forget from where.

24 Q. Now, if it's a 500-metre corridor you
25 would not have that same concern?

1 A. In a 500-metre corridor there is a
2 lot of ways, the only areas where you would have to go
3 in beforehand is water crossings or if there were other
4 interests that would have to be checked if the road
5 infringes it. It would be very minimal.

6 Q. Now, you also indicated when you
7 responded to Mr. Cassidy that in many cases there was
8 no access to where these roads were being built and
9 that the only way to get in was by helicopter; is that
10 correct?

11 A. Yes. We are still using the
12 helicopter extensively. And some of the areas, when we
13 are five, seven years away, it would be almost
14 necessary to go in with a tent and spend several days
15 in there to do a proper day's job.

16 Q. You mentioned also about 50 per cent
17 needed to be walked or something to that effect. Can
18 you explain to me what you meant by that?

19 A. If somebody wants 250-metre
20 corridors, in order to be sure, there is sections of
21 road that you can identify on a photograph as being of
22 normal construction, but the other 50 per cent there is
23 some amount of difficulty, more or less, and one would
24 have to be on the ground exactly to check exactly.

25 Q. And this would not be required if you

1 had a 500-metre wide corridor?

2 A. A 500-metre wide corridor gives you
3 twice the angle where you would have only the areas of
4 concern or water crossings to be concerned with.

5 Q. But you wouldn't walk the corridor
6 normally in that circumstance?

7 A. Normally they probably would be flown
8 and studied in the aerial photographs and then water
9 crossings would be checked on the ground.

10 Q. Mr. Zorn, I'm going to concentrate my
11 questions to you in terms of the practical
12 implementation of the roads.

13 I looked at your resume and saw that you
14 were the person who had the most on-the-ground
15 experience, so I'm going to invite the other members of
16 the panel in answering these questions, rather than go
17 through each of you individually and belabour this
18 cross-examination, to interject if in the circumstances
19 or experience that you have there is something
20 exceptional that you would bring to the attention.

21 So I just invite the rest of the panel,
22 if they feel so inclined, to provide that input.

23 Now, what time of the year -- I'm going
24 to deal now with a matter of, after we have got a
25 timber management plan prepared, we've identified a

1 corridor; that is, all of those things have been
2 provided to you, we are now into the implementation
3 stage, right, where you go out there and go through the
4 exercise of locating the road, flagging the centre line
5 and then subsequent steps of clearing, grubbing,
6 grading and all the other components of the project.
7 And I would like to deal first with this matter of the
8 location of the road within the corridor.

9 Now, you had mentioned in your witness
10 statement that this is often done by the forester, I
11 think was the term you used, and yet I thought I heard
12 you say earlier in my questions that you also are
13 involved in or have been in the past in the location of
14 the roads; is that correct?

15 MR. ZORN: A. That's correct.

16 Q. So the road may be located by forest
17 technicians, it may be located by foresters or it may
18 be located by forest enginners; there's a variety of
19 people that may be involved in that exercise?

20 A. That's correct, Mr. Hanna. When I
21 meant foresters I meant anyone of the three categories
22 you mentioned.

23 Q. All right. Okay. Now, what time of
24 the year usually are you involved in locating centre
25 lines, flagging alternative corridors, flagging the

1 line of centre lines, that sort of -- does it happen
2 any time of the year, or is there a specific time of
3 the year you normally do it?

4 A. The best time is in the spring when
5 the snow is low, you can snowshoe, you have no leaves,
6 you can see a long distance on both sides of your
7 perspective road line or in the fall, again when the
8 leaves have fallen off the trees.

9 MR. HANNA: Excuse me, Madam Chair, if I
10 contaminate this hearing. Unfortunately the whole OWMC
11 hearing has been brought down by this cold that I have
12 got and I hope that doesn't spread to this hearing
13 also. Excuse me for my --

14 MADAM CHAIR: We are a heartier species
15 than the OWMC.

16 MR. HANNA: Q. Mr. Zorn, just another
17 minor point here, it has to do with a statement in your
18 resume on page 9 of Exhibit 1116.

19 At the very bottom of that page you
20 indicate that you have been responsible, at least in
21 the period 71-84, for accumulating technical data for
22 water crossings, road locations and soil conditions;
23 correct?

24 MR. ZORN: A. That's correct, Mr. Hanna.

25 Q. Can you elaborate on what type of

1 technical data you are referring to here? I'm
2 particularly interested in -- I understand there is
3 engineering data that needs to be collected for these
4 sort of things.

5 I'm interested in, if you will, the
6 environmental type data that might have been collected
7 as part of this exercise?

8 A. If I may take the Suzanne River
9 crossing as an example, we were made aware by the MNR
10 that this Keikewabik Lake had other interests on it,
11 tourist operators, we used that so-called turkey trail
12 I mentioned.

13 Q. Used -- sorry. Oh, the turkey trail.
14 I'm sorry, I forgot about that. Yes.

15 A. The turkey trail and with a
16 four-wheel drive and a canoe we accessed Keikewabik
17 Lake and we found a boat cache right close to the lake
18 and we went up Suzanne River by canoe to that crossing,
19 launched the crossing site on the rapids.

20 We were made aware also by the MNR there
21 was no other access to this lake, so we were quite
22 pleased that for three quarters of a mile along the
23 lakeshore was swamps on both sides, there would be no
24 chance ever anybody getting lost and accidentally
25 getting an access to the lake and then, as I said,

1 because of the ground conditions we had to move to a
2 fresh location farther south.

3 At the same time the environmental
4 impacts, there was canoe routes -- we found canoe
5 portages on that one rapids. Again, it was reason for
6 us to stay far away from it.

7 Q. The technical data wouldn't include
8 things such as the existence or potential fish spawning
9 areas, water quality conditions?

10 A. Most certainly.

11 Q. Sensitive sites?

12 A. Mr. Hanna, I indicated I'm a hunter
13 and fisherman and I know fish are spawning and rapids
14 is the logical spot where pickerel would respond.

15 Q. Some fish species?

16 A. Or -- yes.

17 Q. Not pike?

18 A. No, not pike.

19 Q. Would you collect that information as
20 a routine basis?

21 A. Yes.

22 Q. And where would that be recorded; how
23 would it be reported?

24 A. This would be part of our notes.

25 Most larger rapids they are indicated on maps anyway,

1 they are easily seen on photographs.

2 Q. I'm talking now -- I am sorry, Mr.
3 Zorn. All I'm interested in here particularly is the,
4 if you will, the natural environment side of things in
5 terms of that information you might collect.

6 You go out and you say: Gee, this is a
7 perfect rubble for a pickerel spawning bed, I may not
8 know whether they are using it or not but, sure,
9 let's...

10 How did that information get filtered
11 back through the system?

12 A. It would get filtered back through
13 the system by talking to the Ministry of Natural
14 Resources when you are making the application for
15 crossings and it could come out in normal conversation.
16 What is in that lake, is there any fish in there,
17 because of the beautiful set of rapids, and you would
18 get the answers from the biologist or the game warden,
19 and the game warden is spending more time out there
20 than some other people.

21 Q. Yes. But this information would
22 become available only after the timber management plan
23 was approved and you had gone out there and actually
24 got involved in the, if you will, detailed design of
25 the road system?

1 A. That is why I mentioned that we have
2 to put narrower corridors in there, the AOCs for water
3 crossings are identified, they have been looked at and
4 these findings have been noted.

5 Q. Is there any formal requirement that
6 you are aware of for you to report that information and
7 to make it publically available to groups other than
8 the Ministry of Natural Resources in your experience?

9 A. Not that I am aware of, Mr. Hanna.

10 Q. Any other members of the panel wish
11 to add something on that?

12 MR. JOHNSTON: A. Mr. Hanna, when our
13 supervisors cruise a road location they have a
14 checklist sheet that they carry with them that
15 indicates materials at water crossings, materials they
16 encounter along the way, and there is a remarks column
17 in it and this is given to our forestry department and
18 these remarks have been put in our FRI data which is
19 available to the Ministry or anybody concerned with the
20 road construction.

21 Q. Mr. Wright, I'm going to ask you this
22 question because you are the quarterback. You may want
23 to pass it off to one of your fullbacks, but the forest
24 industry's terms and conditions make reference to a
25 two-level procedure in terms of the planning process;

1 one being was the simple plan, the other being the
2 database. Are you familiar with that?

3 MR. WRIGHT: A. Yes, that's correct.

4 Q. Would this type of information, based
5 upon your understanding of those terms and conditions,
6 be included in that database? Would that be the
7 process whereby this information would be communicated?

8 A. As far as my understanding takes me,
9 that is correct. I don't want to speak for Panel 10,
10 but in my opinion that is correct.

11 MR. ZORN: A. If I may add, Mr. Hanna,
12 some individual values that may be considered and noted
13 is heron rookeries nests, eagles nests, osprey nests
14 and certainly they would be made aware through or been
15 notified to the MNR biologist.

16 MR. CASSIDY: Mr. Hanna was not here
17 yesterday - and I'm just doing this for his benefit -
18 that our Panel 10 will be prepared to discuss this
19 issue at length with him.

20 As you saw yesterday in the overview,
21 Madam Chair, you got a glimpse of it and for Mr.
22 Hanna's benefit that very question could be put to the
23 Panel 10 and that is why Mr. Wright is suggesting that
24 it may be appropriate to deal with it at that time,
25 just for his benefit.

1 MR. HANNA: Madam Chair, I appreciate Mr.
2 Cassidy's assistance in that matter. Part of the
3 reason I'm raising this at this point is simply to give
4 notice to my friend that these are the types of
5 questions that I will be bringing forward in Panel 10
6 and I understand that these people have limitations in
7 terms of their understanding of that kind of system and
8 I'm not planning on taking it any further.

9 MADAM CHAIR: Would you like to break for
10 lunch now, Mr. Hanna, or is it...

11 MR. HANNA: No. The reason I'm laughing
12 is I had hoped to proceed further than this. I found
13 this panel to be quite informative and, therefore,
14 perhaps I have followed some subjects further than I
15 had expected.

16 Yes, certainly a suitable time to break
17 for lunch. I'm going to do my very best to finish this
18 afternoon, if I can.

19 MADAM CHAIR: Thank you, Mr. Hanna.

20 We will come back at five after one.

21 ---Luncheon recess taken at 12:05 p.m.

22 ---On resuming at 1:05 p.m.

23 MADAM CHAIR: Please be seated.

24 MR. CASSIDY: Madam Chair, you will
25 recall that last year Mr. Sutterfield - who is

1 conveniently leaving the room - and I entered into a
2 fish derby and he is pressing me for details on the
3 latest one and I may have to resort to the Board's
4 powers in decision making to settle the dispute that we
5 are having, but I will advise you in due course next
6 week.

7 MADAM CHAIR: Good luck, Mr. Cassidy.

8 MR. CASSIDY: I will need it against Mr.
9 Sutterfield.

10 MR. HANNA: Madam Chair, there is one
11 other matter that I would like to deal with before I
12 continue.

13 Mr. Cassidy over the lunch break asked me
14 what our status was with respect to cross-examining
15 Panels 6 and 7 and I indicated to him that we had hoped
16 to be able to cross-examine Panel 6, but we were under
17 extreme constraints at the Federation in terms of
18 trying to keep up with the Board's schedule and
19 suggested it would be wise to bring to the Board's
20 attention our intentions.

21 I recognize that the deadline for
22 statements of issues has passed for Panel 6 and there
23 is one coming up very shortly for Panel 7. I would
24 appreciate the Board's leave to allow me to
25 cross-examine on this panel given that we were late on

1 that. I did, however, bring to the Board's attention
2 that I would probably be approaching you either
3 personally or in correspondence next Tuesday asking for
4 leave to cross-examine Panel 6.

5 Mr. Cassidy indicated to me that the
6 Board was making plans in terms of scheduling and
7 whatever and I wish to bring that to your attention.
8 I am not asking for a decision on it at this time, but
9 I did think it was wise to bring it to your attention.

10 MADAM CHAIR: Thank you, Mr. Hanna.

11 MR. HANNA: Q. Mr. Zorn, can I come back
12 to you for a moment. In reflection over my bacon and
13 tomato sandwich I was thinking about your comment about
14 the 250-metre corridor and there is just one think I
15 would like to just follow up on that.

16 I understand the concern that you have
17 expressed in terms of being burdened at the timber
18 management planning stage for five years in the future
19 to prepare detailed planning, potentially giving the
20 eventualities that might result over that five years, a
21 change in the plans or whatever and the workload
22 associated with it and, hence, the reason why you felt
23 that a 500-metre corridor would be better. Is that the
24 essence of what you are saying?

25 MR. ZORN: A. That's correct.

1 Q. Now, is it not fair also, though,
2 that in selecting a 500-metre wide corridor that
3 provides greater discretion to those people involved,
4 such as yourself, in laying out the road in terms of
5 where it might go? There is more latitude in terms
6 of the decision?

7 A. That's correct.

8 Q. And does it also not follow that
9 because of the greater latitude there is the greater
10 likelihood of having to make what's termed an
11 environmental assessment tradeoff decision?

12 Are you familiar with the term tradeoff
13 decisions?

14 A. Yes, I know the term.

15 Q. Would you agree that that is the
16 case, the broader the corridor the greater potential
17 for tradeoff decisions to be made outside of the timber
18 management planning process?

19 A. Mr. Hanna, let me answer it this way.
20 I think areas of intensified values will have to be
21 identified prior to the plan being authored or being
22 put into motion. These areas will have to be addressed
23 prior to putting that plan in motion.

24 These so-called water crossings or
25 intensified values, they will have to be addressed, but

1 you have the sections in between where if the corridor
2 is narrow done somewhere you have to address it, and I
3 feel a lot of it we do not see from aerial photographs
4 will have to be ground checked and this is the extra
5 burden I'm talking about.

6 Q. Yes, I understand that. I guess the
7 point that I'm saying is like -- in an analogous way of
8 what you're saying, that you often don't know all of
9 the physical constraints you might face in terms of
10 laying out the road until you get on the ground.

11 Is there not also the potential that
12 there are non-timber values that will only be evident
13 when you get on the ground? We don't know all the
14 areas of concern.

15 A. We don't know all the areas of
16 concern, no.

17 Q. And are there not different types of
18 areas of concern? There are areas of concern like a
19 tourist lodge which is fairly fixed and static, we know
20 where the lodge is, it doesn't move around and whatever
21 and there are other things that do, that are more
22 transient within the forest system, whether they be
23 nests or whether they be even things like deeryards or
24 late winter moose cover and that sort of thing.

25 A. I would think some of the values you

1 are indicating like nests, I think they are not
2 transient, they are pretty well in place. Heron
3 rookeries, osprey nests, eagle nests, they are
4 allocated in the same area year after year.

5 Q. Are you confident about what you are
6 saying in terms of heron rookeries and osprey nests,
7 Mr. Zorn?

8 A. In my experience, I can't talk for
9 everybody.

10 Q. Are you familiar with the literature
11 in that field suggesting that heron rookeries are often
12 quite mobile?

13 A. No, I'm not familiar with that.

14 Q. Are you familiar that there has been
15 evidence presented at this hearing to that very effect
16 in terms of a road location, that a heronry suddenly
17 moved and ended up in the middle of the road corridor?

18 A. I can't recall that.

19 Q. All right. Well, let's --

20 MS. BLASTORAH: Madam Chair, I was just
21 wondering if Mr. Hanna could perhaps advise me during
22 the break or something which particular evidence he is
23 referring to in that regard. I am not sure that the
24 way he has just characterized the evidence is exactly
25 the way I remember it in terms of heron rookeries

1 suddenly just moving.

2 I would just ask if he could maybe
3 clarify that for me later so that we can confirm his
4 restatement of the evidence. I don't want to interrupt
5 beyond that now.

6 MADAM CHAIR: Yes. Do you have a
7 transcript reference of that, Mr. Hanna?

8 MR. HANNA: Madam Chair, I can get a
9 transcript reference, but I do think it's important to
10 put it on the record I am referring to a statement Mr.
11 Multamaki made in my cross-examination of Panel 15
12 dealing specifically with that matter, and if you wish
13 I can provide that.

14 MADAM CHAIR: That's clear enough, isn't
15 it, Ms. Blastorah?

16 MS. BLASTOAH: Pardon?

17 MADAM CHAIR: Is that clear enough?

18 MS. BLASTORAH: Yes, I wasn't here during
19 Panel 15 so that's very helpful. Thank you.

20 MR. WRIGHT: Mr. Hanna, may I help you
21 with that question?

22 MR. HANNA: Certainly.

23 A. As well as having to follow what is
24 dictated in the plan, we are also compelled and agreed
25 to follow guidelines that are out there. So any

1 transient movements in the meantime, we still are
2 compelled by the guidelines to follow that course of
3 action.

4 MR. HANNA: Q. Compelled may perhaps be
5 the wrong word, Mr. Wright. Certainly there are
6 guidelines, whether they are compelling or not, whether
7 they are discretionary is another issue.

8 The question is, though, you won't apply,
9 for example, the guidelines for warblers unless you
10 know there's warblers there that you have got to apply
11 the guideline for?

12 MR. WRIGHT: A. But if it's there and we
13 recognize it we are compelled to follow what the
14 guidelines say, not just what is in the five-year plan.
15 The guidelines do not stop after the final plan.

16 Q. No, I well appreciate that, Mr.
17 Wright, that isn't my point. My point is two things.
18 No. 1, the guidelines are discretionary in terms of how
19 they are applied; second of all, they are only applied
20 when that value is known; correct?

21 It has to be recognized before you apply
22 the guideline?

23 A. Yes, it has to be recognized.

24 Q. And some of these values aren't
25 easily recognized, they aren't something you just go

1 out and stumble over and say: Well, that's obviously a
2 heron rookery because I've all of a sudden found a
3 noisy bunch of birds that are making everything white
4 and stinky; isn't that correct?

5 A. Yes, that's correct.

6 Q. There are significant features that
7 are not easily detected?

8 A. That's correct.

9 Q. Now, back to you, Mr. Zorn. I just
10 want to deal with this matter in terms of this
11 broadening of the corridor versus the narrowing of the
12 corridor.

13 Is that not really a balancing act? Is
14 that not really sort of dealing with at one time trying
15 to let experienced people like yourself practise the
16 trade they've developed over a long period of time and
17 yet, by the same token, having the public have some
18 assurance as to where the road is going to go and
19 specifically how things are being treated?

20 Isn't it a balancing act? Isn't there
21 some tradeoffs being made there at another level?

22 MR. ZORN: A. Let me ask you, Mr. Hanna,
23 if I may, balancing act, is that within the a 500-metre
24 corridor or is it when there is an additional value
25 being identified?

1 Q. No, I'm simply saying, I could come
2 forward perhaps and say you should have a thousand
3 metre corridor. Do you understand what I am saying?

4 A. Yes.

5 Q. So the question is trying to get what
6 is a reasonable level of detail.

7 A. Well, I feel personally the 500-metre
8 corridor would be sufficient to address what is known
9 now.

10 Q. But you'll agree with me that the
11 wider the corridor the greater the likelihood for
12 individuals like yourself after the timber management
13 plan is approved to have to balance, in this case,
14 timber and non-timber values, cost versus environmental
15 impact?

16 A. Well...

17 Q. The broader the corridor?

18 A. Yes, I agree.

19 Q. One other point and perhaps this
20 should go to Mr. Wright.

21 Mr. Wright, is there in your knowledge
22 any minimum qualifications, formal qualifications that
23 are required for an individual to be involved in
24 locating road corridors on the ground? Does your
25 company have any minimum qualifications, formal. I

1 appreciate it's an important task, but...

2 MR. WRIGHT: A. Our minimum
3 qualifications would be a forestry technician or
4 technologist degree from a college in Canada or
5 anywhere.

6 Q. Is that consistent with the rest of
7 the panel's information, that in their experience have
8 similar types of minimum qualifications for companies
9 they work for?

10 MR. GEMMELL: A. There's no -- in our
11 company there would be no stated minimum qualification.
12 Most of the people that do that kind of work are forest
13 technicians or foresters, but there are very
14 experienced people who also do it without the formal
15 education.

16 MR. WRIGHT: A. We have no written
17 policy either, it just happens to work out that way.

18 Q. Mr. Zorn, I am going to continue with
19 you because of your on-the-ground experience.

20 Now, I'm not sure whether you agreed with
21 me are disagreed with me that some environmental
22 features are much more easily detected than others and
23 require less training and experience to identify them;
24 is that correct?

25 MR. ZORN: A. Yes, that's correct.

1 Q. Now, you're a moose hunter I think
2 you said?

3 A. That's correct.

4 Q. Do you know what a moose mineral look
5 looks like?

6 A. Yes.

7 Q. Can you tell me how many kilometres
8 of road approximately in the Thunder Bay area or in the
9 area that you work in have you flagged over the last,
10 say, 10 to 15 years?

11 A. Several hundred.

12 Q. Kilometres?

13 A. Yes.

14 Q. A man will get a lot further than
15 that. In ten years?

16 A. I am getting older, sir.

17 Q. In ten years you've -- all right,
18 fine.

19 Now, in that period of time how often
20 have you encountered, for example, a moose mineral lick
21 during the location of the corridors?

22 A. Mr. Hanna, in the 35 years that I
23 have been in the forest industry in Ontario I saw only
24 two mineral licks that I know personally. As a matter
25 of fact, if a moose mineral lick is in an intensified

1 area or an area of concern, personally speaking I would
2 not like to see that on a value map.

3 Q. I understand what you're saying. But
4 let's not worry about value maps and the fact that we
5 can get over hunting ground, mineral licks.

6 I am asking you in the experience that
7 you have identifying road corridors, how often have you
8 encountered a moose mineral lick?

9 A. Two, two occasions.

10 Q. And what happened in those -- can you
11 tell me the circ -- I don't ask you specifically where
12 it occurred, but can you tell me what occurred in that
13 circumstance?

14 A. Well, the first one I encountered was
15 way back in 60/61 in a road that I had located. I had
16 seen a moose on the road from a road line. We went
17 back subsequently because there was also a fishing
18 stream and speckled trout season rolled in and we were
19 all anxious to try this new stream and very close to
20 the stream, we only had to walk roughly about a quarter
21 of a mile off the road line, the creek was -- following
22 around the creek, it went far away from the road line.

23 I did find a spot where there was a moose
24 lick and, as a matter of fact, a moose was standing in
25 it and we moved the road a little farther away. As I

1 said, I'm a moose hunter and I did not want anybody to
2 come by there and follow me at the shooting gallery and
3 we moved the road another quarter of a mile to the
4 west.

5 But for a joke somebody came up and says:
6 Any moose around, and I say: Do you want to see a
7 moose, well let's go. We jump in the truck and we
8 drive for 20 minutes, walk in for about five and nine
9 out of ten times you will see at least one moose and
10 that's only certain times of the year. If you go later
11 in the fall they disappear.

12 Q. I'm not talking about moose corridors
13 at the moment, but I guess the question I asked is:
14 We've had discussions with Ministry biologists in terms
15 of the likely density of moose licks in the province
16 and the fact that the Ministry has very little
17 information on those sort of features, and I'm
18 interested in knowing what is the likelihood of those
19 sort of features being within a road corridor and not
20 being identified?

21 MR. CASSIDY: I want to step in here
22 because he is not qualified as a moose biologist or a
23 biologist in any form whatsoever. I'm content that the
24 question be asked and the question be answered, but I'm
25 really questioning the weight and the relevancy of this

1 evidence.

2 We are getting into anecdotal evidence
3 which we have tried to avoid in our evidence. In terms
4 of cross-examination, if he gets it so be it; but I
5 would just like to caution the Board that we are
6 getting outside areas which I think are relevant.

7 MS. BLASTORAH: And, Madam Chairman, I am
8 sorry to interrupt again, but I just again would like
9 to clarify one comment Mr. Hanna made about the
10 previous evidence in regard to moose licks and; that
11 is, the evidence has been that the Ministry has
12 identified a relatively small number of moose licks.

13 I think the way Mr. Hanna expressed it -
14 and he may not have intended to make this implication -
15 but I would like to clarify on the record that to my
16 ear, the way he expressed it, implied that there are
17 definitely many more moose licks that have been
18 identified. And I don't think there has been any
19 evidence to that effect. The only evidence has been
20 that a relatively small number of moose licks have been
21 identified.

22 The absolute number of moose licks in the
23 province I don't think we heard any evidence on.
24 Whether there are more than that relatively small
25 number, I don't think the Board is in a position to

1 assume.

2 I just wanted to clarify that on the
3 record.

4 MR. HANNA: Madam Chair, I have got two
5 objections here coming at me. First of all I will deal
6 with Ms. Blastorah because I remember that the best.

7 In my cross-examination of Dr. Euler we
8 spoke about the number of moose licks known in the
9 province and it was small number, I believe it was in
10 the order of 20 or 30.

11 MS. BLASTORAH: I believe it was 27.

12 MR. HANNA: I was going to say 27 but I
13 didn't want to be quoted on it. And then we explored
14 further with Dr. Euler the fact of certain essential
15 habitat components within moose territories. Dr. Euler
16 agreed that moose mineral licks were one of the
17 essential habitat factors.

18 We did a calculation as to the number of
19 potential territories within the province, a figure --
20 another off-hand figure, in the order of 600,000.

21 MADAM CHAIR: What does this all have to
22 do with questioning Mr. Zoran?

23 MR. HANNA: I was trying to get the
24 record straight. I was going to deal with that in a
25 moment, Madam Chair --

1 MADAM CHAIR: I think that's sufficient
2 clarification.

3 MR. HANNA: Okay, fine. The reason I
4 have asked these questions to Mr. Zoran - and in fact I
5 have only focused on him, I could have asked any of the
6 members of the panel - is my understanding is that in
7 the access planning, particularly in the implementation
8 phase, there is considerable latitude in terms of where
9 the actual road goes within the corridor, if we have
10 got a 500-metre wide corridor.

11 And I believe Mr. Zoran has already
12 indicated to us that many of the roads that are being
13 built in this province have very difficult access.
14 There was mention helicopters and whatever. And many
15 of the features we are talking about - and these
16 mineral licks are just an example, I could have picked
17 my number of natural environmental features - are not
18 detectable from aerial photographs from any of the
19 known of remote sensing type techniques that we have
20 available to us, they are one of those things that you
21 only find when you are going for a fishing trip along
22 the stream and you happen to run into it.

23 These are the people, this sort of panel
24 that we have here, the people that are going out and
25 laying these roads out into areas that have heretofore to

1 been unexplored for all intents and purposes, and I see
2 these people as being at the front line of that natural
3 environment information that is required to assess
4 fully the potential impacts of access on non-timber
5 values.

6 And while I appreciate what Mr. Cassidy
7 has said, these gentlemen have not been qualified as
8 moose biologists or ecologists or as people trained in
9 those sort of things, these are the people that are out
10 there that are marking these lines and that are the
11 people and only people that are likely to detect those
12 sorts of features.

13 What I'm interested in exploring with
14 this panel is to find out how likely it is that
15 non-timber values important to the public are actually
16 going to be detected, are going to be reported, and
17 that the planning process is going to be able to adjust
18 and deal with those things as we come across them.
19 That is the whole focus of the line of
20 cross-examination I have been following.

21 So in that respect, I think that it's
22 perfectly relevant to ask these gentlemen: What is the
23 likelihood of you seeing a barn owl's nest or a moose
24 lick or whatever it is that we can't -- we don't have
25 that information.

1 The Ministry of Natural Resources has
2 told us, we have heard 18 months, they don't have
3 comprehensive information. We know that these are the
4 front line people, these are the people that are going
5 to collect that information.

6 Can we rely on these people to collect
7 that information? That's the point of my question.

8 MADAM CHAIR: Well, I think you are clear
9 now, Mr. Hanna, you have three questions to put to the
10 panel and perhaps all the panel members can take turns
11 answering if they have something to say about it.

12 It has to do with whether they feel
13 confident that their staff people can detect values
14 during road planning, whether they -- to whom they
15 report that information if at all, and how the planning
16 process itself can protect those values.

17 I think Mr. Zorn's evidence is that if
18 the road corridor is large enough he seems to indicate
19 500 metres, he thinks he can work around some of those
20 features in terms of road planning.

21 You can put those precise questions to
22 the other panel members.

23 MR. HANNA: I wasn't planning to go
24 through the other, that's why at the beginning of my
25 cross, Madam Chairman, I didn't intentionally lay out

1 the questions to all the panel and invited the other
2 panel members to add where appropriate.

3 Well, that is the point of my questioning
4 and I'm interested in hearing what the panel has to say
5 in terms of their confidence, in terms of their
6 training in being able to detect potentially
7 significant natural environment features that may well
8 not be recorded heretofore in the database that the
9 Ministry of Natural Resources might maintain.

10 MR. CASSIDY: There is a logical
11 inconsistency here. They are not qualified as moose
12 biologists or biologists in respect of other matters
13 and, therefore, the weight to which and if an answer
14 would be given, I would suggest, is not of value to the
15 Board. If you are not qualified in those areas to give
16 expertise, the question of whether or not you can
17 pontificate on the likelihood of noticing those values
18 is really of no weight.

19 I suggest the way we get around this is,
20 I think we have Mr. Hanna's position and if he wants to
21 deal with it in his evidence by way of calling expert
22 witnesses, presumably qualified as biologists or
23 whatever to talk about that likelihood, then so be it.

24 But I think in fact to ask a person who
25 is a layman, you know, how many values are out there

1 that you might miss, and that person is not an expert
2 in what those values are, I think is missing the point
3 and it's this type of cross-examination, with the
4 greatest respect to Mr. Hanna, which ends up prolonging
5 the hearing.

6 MR. HANNA: Well, Madam Chairman, I wish
7 Mr. Cassidy could take the stand because if he would
8 give me that as evidence I would be very pleased to
9 have that.

10 That's simply the whole essence of my
11 questions, and if the panel is willing to say: We are
12 laymen, we don't have the training and ecological
13 expertise to be able to identify these features,
14 certainly there are things that we are missing, we
15 recognize that, that is the end of that line of
16 questioning. And if the panel wishes to say that, I'm
17 quite pleased to have that information on the record.

18 Q. Does anyone wish --

19 MADAM CHAIR: Well, I think that the
20 Board accepts that these panel members don't have
21 wildlife training, and I think a point that Mr. Cassidy
22 was also making is that one wouldn't assume the panel
23 members would know which values they had missed.

24 You could ask if they have ever detected
25 values in the field, but there is no way of knowing

1 whether they detected them all or they missed any of
2 them.

3 MR. CASSIDY: How would they know if
4 that's right.

5 MR. HANNA: Well, I accept that point,
6 Madam Chair. I will put it to the panel then to end
7 this line of cross-examination.

8 Q. Do the individuals, yourselves and
9 other employees of your companies have training in the
10 natural sciences such that sensitive natural
11 environmental features will likely be detected and
12 adequately dealt with during the implementation of road
13 networks?

14 MR. WRIGHT: A. Yes, I believe that is
15 true.

16 Q. And you are speaking -- well, perhaps
17 let me ask the panel members.

18 A. On behalf of my company, I would say
19 that's true.

20 Q. And you be one of them?

21 A. Yes, I would be one of them.

22 Q. You would be familiar, for example,
23 with what a boreal owl's nest looks like?

24 A. To the best of my ability if I
25 found -- I can't claim to be an expert, but if I found

1 something out there I would come back and ask about it
2 to someone who was.

3 Q. But you can't take a blind man and
4 have him find something, you have to know what you are
5 looking for. Can you tell me what a boreal owl's nest
6 looks like?

7 MR. CASSIDY: We already went over the
8 resumes.

9 MR. HANNA: Well, this is the answer
10 Madam Chair.

11 MR. CASSIDY: Madam Chair, we went over
12 the resumes -- this representative went over them very
13 carefully, there is not one of them that has a biology
14 degree, it's right there for everyone to see, that is
15 why we have people like Mr. McNicol who has given
16 copious evidence on this matter before testifying
17 before the Board to talk about those things.

18 With the greatest of respect, I just
19 don't understand where we are going on this.

20 MR. HANNA: Madam Chair --

21 MR. CASSIDY: It's in the resumes.

22 MR. HANNA: Madam Chair, it's not Mr.
23 McNicol who is laying out the centre lines of the
24 roads, it's gentlemen like we have here.

25 As much as Mr. Cassidy would like to

1 direct his witnesses, the witness has said he does have
2 those capabilities, he is representative of the person
3 that would have those sorts of capabilities, be able to
4 identify those features. It's his answer, it's not
5 mine.

6 And I feel it's perfectly appropriate to
7 ask him that question given the fact that this witness
8 has said to me: Yes, I do have those capabilities,
9 yes, I'm the kind of person who would be doing that. I
10 think it's perfectly appropriate to explore that with
11 him.

12 MADAM CHAIR: Do you intend to go through
13 a long list of specific difficult to find values?

14 MR. HANNA: I don't think it will take
15 very long. I think I can deal with one species and it
16 will be all over with.

17 MADAM CHAIR: Well, what is your point
18 now, Mr. Hanna?

19 MR. HANNA: The point is, this gentleman
20 has said to me, Madam Chair: Yes, I'm the type of
21 person who would be out there doing it; yes, I have the
22 capabilities to identify those features; yes, I would
23 report and deal with them as I encounter them.

24 Now, I wish to explore with this witness
25 his capability to identify those sort of features.

1 MR. WRIGHT: Mr. Hanna, what I meant to
2 say was, to the best of my abilities I will identify
3 these values, which I do have some abilities in that
4 respect, and I do need the help of the Ministry of
5 Natural Resources.

6 In a lot of these cases we will come back
7 and say: We seen some nests, let's go see where they
8 are, and we will report to the appropriate person who
9 knows these nests. And that is the best to all of our
10 abilities.

11 MR. HANNA: Q. But not all nests are
12 easy to see, Mr. Wright. What does a boreal owl's nest
13 look like?

14 MR. WRIGHT: A. That's one I don't know,
15 sir.

16 MR. HANNA: Well, that's...

17 MADAM CHAIR: That's fine. That's your
18 answer, Mr. Hanna.

19 MR. HANNA: That's the sum total of it,
20 Madam Chair. That's all I'm trying to point out.
21 These people have limited capabilities and there are
22 things that may not be observed by people such as this
23 in the field. That's the end of it.

24 MR. MARTEL: Would you have a biologist
25 on every job then? I mean, I'm having some difficulty

1 getting to the bottom line then, because we reach this
2 point and where do we go from there, because while
3 there are hundreds of kilometres built annually, are we
4 going to put - and I ask you that question - do we put
5 a biologist out there walking each mile or each
6 kilometre as it's constructed? I simply don't know.

7 MR. HANNA: Mr. Martel, that certainly is
8 a fair question and I can say that I can respond to
9 that. It is in our terms and conditions. Just give me
10 a moment I will give you the reference. It's on page
11 27, term and condition 156 under minimum information
12 requirements. 156.

13 It indicates:

14 "Prior to the issuance of approval to
15 harvest any forest stand or construct a
16 primary, secondary or tertiary access
17 road a reconnaissance level of on-site
18 survey by a qualified biologist shall be
19 performed between May 24th and September
20 15th to ascertain..." and lists what
21 should be ascertained.

22 So in answer to your question, Mr.
23 Martel, it is our view that the public is demanding
24 this sort of information be collected and, yes, we are
25 saying that an appropriate level of information must be

1 collected. We have looked very carefully at the
2 practical implications of that and we will be
3 discussing that in our evidence.

4 Q. Panel, I would like now to move to a
5 new topic if we might, and I would like to refer to
6 your witness statement on page 2, paragraph 4.1.

7 I'm going to begin my cross-examination,
8 I'm just going to go through these paragraphs for you.
9 You have already dealt with them in your
10 evidence-in-chief, and there is just several points of
11 clarification I want to follow up on, and I would like
12 to deal first with this 4.1.

13 Now, when I look at your statement there
14 as to the purpose of access and what it is meant to do,
15 you seem to suggest there - perhaps, Mr. Wright, you
16 are the person to answer these questions - you are
17 suggesting there that it has a large number of
18 purposes; harvest, delivery, renewal, stand tending and
19 protection; is that correct?

20 MR. WRIGHT: A. Yes, that's correct.

21 Q. Now, in Exhibit 4 which is the
22 Environmental Assessment on page 1 of the summary
23 form - it's right at the very beginning of the
24 environmental assessment - and I believe you actually
25 made reference to this in your witness statement, the

1 description of the undertaking dealing with access is
2 indicated on 3(i), it says that:

3 "It consists of the provision of access
4 to harvestable timber."

5 It's my understanding of your evidence
6 that you see the provision of access being for more
7 than just access for harvestable timber; is that
8 correct?

9 A. Our provision of access is basically
10 made for timber management and we respect other users
11 while we perform this management, but it's basically
12 made for timber management which includes all the
13 things listed in that list.

14 Q. Yes, but I'm -- this doesn't talk
15 about timber management, this says access to
16 harvestable timber. I just want to make sure that you
17 are seeing access in a different light than what is
18 described on this page of the environmental assessment?

19 A. No, I'm not seeing it any
20 differently.

21 MADAM CHAIR: Mr. Hanna, what page was
22 that again?

23 MR. HANNA: Yes. I am sorry, Madam
24 Chair. It's page 1 of the summary form.

25 MS. BLASTORAH: Madam Chair, it's at the

1 very beginning of the EA, the summary at the beginning
2 and it's under the item 3 which is Description of the
3 Undertaking.

4 MADAM CHAIR: Yes.

5 MR. HANNA: Q. Well, I must admit, I'm
6 at a bit of a loss here, Mr. Wright. I'm looking at
7 the statement, that is your witness statement on page
8 2, 4.1, and I see here that you are saying the
9 provision of access is a fundamental step to servicing
10 the land base and it's a prerequisite for a whole
11 variety of operations.

12 And when I look on the other hand and I
13 look at Exhibit 4 on page 1 and it says the reason we
14 provide access is to get harvestable timber.

15 Now, I'm missing something, I don't see
16 how -- those two don't reconcile with me. Can you
17 explain to me why you say they both are saying the same
18 thing; they seem to be saying two different things:
19 One is saying there's only one purpose and the other is
20 saying that there is multiple purposes for access.

21 MR. WRIGHT: A. All I can use to explain
22 it is, our main purpose of the undertaking is for
23 timber management and I believe that is what the
24 Environmental Assessment Document is talking about -
25 and I can't speak for them people - and ours is saying

1 that, but we do take into account other users in our
2 process.

3 Q. Now, with respect to that answer on
4 page 3, the subsection 6 of paragraph 4, the answer
5 sites: Multiple benefits can be achieved from forest
6 access roads. And I gather that is what you are
7 saying, that you take these other uses into...

8 A. What page is that?

9 Q. Page 3.

10 MADAM CHAIR: Page 3 of the summary, Mr.
11 Hanna.

12 MR. CASSIDY: Is this of our witness
13 statement?

14 MR. HANNA: This is Exhibit 1116, page 3,
15 top of the page, Section 6 in bold type.

16 MR. WRIGHT: Yes, that is correct.

17 MR. HANNA: Q. So access provides not
18 only timber management benefits but provides benefits
19 to a wide range of resource users?

20 MR. WRIGHT: A. These benefits result
21 from the timber management taking place.

22 Q. Yes. And given the forest access
23 roads concern multiple benefits or can provide multiple
24 benefits, is it not logical then to ensure that in
25 planning forest access systems that full consideration

1 be given to all of these uses in order to arrive at an
2 optimum road network configuration?

3 A. No, I don't believe that is true. I
4 think our objective is still timber management and the
5 other users will have benefits and conflicts with our
6 timber management. You have got to remain within our
7 objectives.

8 Q. All right. Is it conceivable however
9 to view the design of a forest access network as an
10 exercise in satisfying, to the extent possible, the
11 multiple objectives that can be realized from the road
12 system?

13 A. Could you repeat that question?

14 Q. Sure. Is it not conceivable to view
15 the design of a forest access network as an exercise in
16 satisfying, to the extent possible, the multiple
17 objectives that can be realized from the road system?

18 A. Yes, if you keep in mind our
19 objectives. I do believe some of the guidelines do
20 address the design of forest access systems, but they
21 must keep in mind our objectives, why we are there for.

22 Q. I'm well aware of your objectives,
23 but there is also the objectives of the public who own
24 the Crown land; is that not right?

25 A. That's correct, and they are involved

1 in the process.

2 Q. And there is two ways to go about
3 this sort of a process; one is to go about it in terms
4 of an objective in constraints, and another way to go
5 about it is to have multiple objectives. Are you
6 familiar with those two basic planning concepts?

7 A. Yes.

8 Q. And it's your opinion that a single
9 objective with constraints is the preferred approach in
10 this particular case?

11 A. A preferred objective, but not the
12 only objective. We still do have to respect other
13 users through the process that we are trying to
14 implement.

15 Q. I'm not sure which of the panel
16 members have the most experience particularly in the
17 boreal system. Who would have the most experience in
18 the boreal system?

19 Mr. Zorn, you have been around for a long
20 time.

21 MR. ZORN: A. In what respect, sir?

22 Q. Not in terms of moose biology. I
23 will ask you the question. Is it your experience,
24 particularly in the boreal forest, that the forest
25 access road network is the primary transportation

1 infrastructure outside of the major provincial
2 highways?

3 A. Yes, Mr. Hanna, you are correct.

4 Q. Is it your experience that users of
5 forest access roads comprise a wide cross-section of
6 society and are not limited solely to the Industry
7 vehicles?

8 A. Yes, on most forest access roads you
9 are correct.

10 Q. Now, I will ask this question to any
11 member of the panel who can help me with it.

12 Do you have any idea of the proportion of
13 the total use on various types of forest access roads
14 that can be attributed to various user groups? Does
15 anyone have any information on that?

16 Someone has got to say no, the record
17 doesn't --

18 MR. CASSIDY: Well, I think the record
19 can show that the witnesses appear to be nodding.

20 MR. WRIGHT: No, I don't think we do have
21 that information.

22 MR. HANNA: Thank you.

23 Madam Chair, through you I'm going to ask
24 a question of Mr. Cassidy that may help me to shorten
25 my cross-examination.

1 In this witness statement the witnesses
2 make reference in the summary in paragraph 4 sub 2
3 about the need to assess economics and evaluate the
4 impact and other affected resource values.

5 Now, this could well be dealt with in
6 Panel 10, it is in this witness statement. I had
7 intended to pursue it with this panel, but by the same
8 token I certainly appreciate the way Mr. Cassidy has
9 structured his case and if he feels it is more
10 appropriate for -- the topic that I was leading into is
11 the evaluation framework, how tradeoffs should be made
12 in terms of access planning, the factors that need to
13 be considered, et cetera.

14 My understanding at this point of this
15 panel is that they are really the people who implement
16 access, the people who are out there constructing the
17 roads and that sort of thing. If they are prepared to
18 talk about evaluation and the role of economics and how
19 this should be done, I am certainly prepared at this
20 time to pursue that with the panel, but by the same
21 token I am quite prepared to hold these questions as
22 long as my right is reserved to come back to this
23 witness statement with Panel 10 with respect
24 specifically to the evaluation framework and how
25 tradeoffs are made and that sort of thing.

1 MR. CASSIDY: My friend is free to ask
2 questions of this panel; however, I think he would find
3 it more fruitful to ask those questions in Panel 10.

4 He is quite correct, in this panel before
5 you are a number of people, in my submission, who are
6 well qualified in the context of the way in which roads
7 are built and to a great degree in terms of the
8 planning; however, the future of how these tradeoffs
9 are going to be made is something that is the subject
10 of our Panel 10 from our perspective and he may well
11 find it fruitful to wait until then and ask the
12 questions of Mr. Munro, Mr. Suomu, Mr. Fry or Mr. Innes
13 or any of the other witnesses in Panel 10, Mr. Young.

14 MR. HANNA: As long as I have the leeway
15 when Panel 10 comes to deal with some of the matters
16 raised in this witness statement, Madam Chair, I would
17 be happy to put that off for now.

18 MADAM CHAIR: Will your questions have to
19 do with the road planning process as it exists now in
20 the timber planning process, or are you going to be
21 asking questions about the Industry's proposed ways of
22 doing it, or what exactly are the questions.

23 MR. HANNA: Well, perhaps that's an
24 interesting question, Madam Chair. Perhaps I can,
25 again through you, ask Mr. Cassidy. When this

1 statement is made in paragraph 4 sub 2 whether it is
2 referring to their proposal or whether it is referring
3 to the proposal of the Ministry of Natural Resources.

4 I think he is in a better position to
5 answer that than I.

6 MR. CASSIDY: I would be happy to. That
7 statement reflects what we would like to see and,
8 therefore, what we would like to see is discussed in
9 our proposals, therefore, that is in Panel 10 as well
10 as our direct terms and conditions.

11 And obviously to the extent that that
12 type of analysis and discussion is engaged in in the
13 Ministry's proposals, we would in fact support it, but
14 it may be dealt with comprehensively in - our
15 proposals - obviously with the contents of Panel 10,
16 what we would like to see.

17 MADAM CHAIR: All right then, Mr. Hanna,
18 do you want to put your questions to Panel 10?

19 MR. HANNA: That's my preference.
20 Certainly I am as anxious as everyone in this hearing
21 to expedite it in any way possible, so I would be
22 pleased to.

23 MADAM CHAIR: I think it would be very
24 important in that case you attend the scoping session
25 for Panel 10.

1 MR. HANNA: I accept your advice, Madam
2 Chair.

3 Q. I would like now, Panel, to deal with
4 a topic that is somewhat related to this but I think
5 that because of your expertise you are probably in a
6 good position to respond to it, and it has to do with
7 an issue that has arisen in this hearing on a number of
8 occasions and my friend Mr. Edwards here beside me has
9 been quite effective in asking these questions in terms
10 of information in terms of the costs of road building
11 and public access to that information.

12 So I would like to move to that subject,
13 if we could.

14 Now, I believe it is clear from your
15 witness statement and from your experiences in
16 developing forest access road systems that a primary
17 consideration in evaluating access road networks and
18 even route locations within corridors is that you have
19 a reasonably accurate estimate of road construction
20 costs; is that correct?

21 MR. WRIGHT: A. That will be correct,
22 yes.

23 Q. Now, there has been some difficulty
24 on behalf of the Ministry of Natural Resources
25 witnesses in providing data in terms of actual road

1 costs. We have been able to get information in terms
2 of the proportion of the road costs that are subsidized
3 by the government, but total road costs we have not
4 been able to get information on.

5 Now, Mr. Wright, would you not agree that
6 the lack of historical data in terms of the full costs
7 of access road construction tends to undermine the
8 public's confidence in any road costs that will be
9 brought forward?

10 A. It might.

11 Q. Well, let me put it to you. If I
12 came forward and said to you I think it's going to cost
13 \$3,000 to finish your basement but I didn't have -- you
14 had no information from anyone else, you couldn't get
15 it from your neighbours, you couldn't talk to other
16 contractors, you had no source of information as to
17 what it has cost other people to have their basements
18 refinished, you would have a hard time evaluating
19 whether I was giving you a fair estimate or whether I
20 was inflating my estimate. Is that not fair?

21 A. Yes, that's fair.

22 Q. And so in that sense you can see that
23 there is the potential, in fact there is very high
24 potential for the public confidence to be undermined?

25 A. It might.

1 MADAM CHAIR: Excuse me, Mr. Hanna. I
2 don't know the question. Are you talking about the
3 confidence of the public being undermined in the amount
4 of government subsidization of Industry road costs?

5 MR. HANNA: No, Madam Chair. The point
6 of the question is, it is my understanding that when
7 the Industry is looking at alternative road corridors
8 their faced with the full costs -- well, actually the
9 net costs, take off the government subsidizes, and
10 quite rightly so. It is a private cost that they face.

11 And that there are tradeoffs that have to
12 be made, tradeoffs in terms of this route may be more
13 environmentally sensitive, if I can use that generic
14 term, the other is going to cost me five times as much.
15 Those are real tradeoffs that they have to make and
16 certainly my client is not coming forward and saying in
17 every case you should spend five times as much.

18 But unless there is some reasonable basis
19 upon which those estimates can be developed, it's very
20 difficult for the public to assess whether or not those
21 are reasonable costs, reasonable cost estimates.
22 That's the point of my question.

23 Q. Do you understand the drift of what I
24 am saying, Mr. Wright?

25 MR. WRIGHT: A. Yes, I do.

1 Q. Now, without implicating that this is
2 the case, would you not agree that there is an
3 incentive on the part of the forest industry to inflate
4 estimated road access costs?

5 A. No, I can't agree with that.

6 MR. CASSIDY: I hope if this line of
7 questioning continues there is going to be some
8 evidence led of this, because I am trying to let Mr.
9 Hanna go as far as possible without prolonging the day
10 by always rising, but that - he is getting very close
11 to a serious allegation which my clients do not accept
12 in any way whatsoever.

13 And I am sure that he appreciates by now,
14 having been acting in a quasi-judicial capacity for
15 some time, the importance of making comments with
16 factual background where he is making allegations of
17 that nature.

18 MR. HANNA: Madam Chair --

19 MR. CASSIDY: He better be prepared to
20 produce it in this hearing.

21 MR. HANNA: Madam Chair, I certainly
22 appreciate the concern of my friend and I am aware of
23 the obligation on me in terms of making these sort of
24 statements.

25 By the same token, I am sure the Board is

1 only too aware that the public has no way of verifying
2 or not verifying this sort of information because that
3 information is not forthcoming from Industry.

4 I have no way of calling that evidence
5 other than perhaps under subpoena to call a hostile
6 witness who I might think some way or another I might
7 be able to inveigle out from that type of information.
8 I can't call that information, that's clear, that's
9 information of a proprietary nature that the companies
10 have that I can't call.

11 MADAM CHAIR: What you are saying, Mr.
12 Hanna, is in a timber management plan or an annual
13 operating plan and there are four road options you
14 would like to see the cost of each road option in the
15 plan and a breakdown of how they arrived at those
16 costs?

17 MR. HANNA: Ultimately that's where I am
18 going, Madam Chair.

19 MADAM CHAIR: Why would you need that
20 sort of detail? I mean, if you had a situation where
21 there was, you know, hundreds of metres of bog that
22 would be expensive to build over, what would be the
23 necessity of knowing to a penny how much that option
24 would cost when it is obvious that it would not be
25 selected in any event?

1 MR. HANNA: Well, two things I would
2 respond there. First of all, I am certainly not
3 looking for the penny, that's not my intent at all.
4 And if there are no real choices, no real tradeoffs
5 that have to be made; if the referred route is, if you
6 will, self-evident, then obviously the level of
7 analysis that is needed to justify that is less.

8 But there are other circumstances where
9 you may have very real tradeoffs that have to be made,
10 very real tradeoffs in terms of a tourist industry's
11 commercial enterprise versus a deer yard versus
12 increased development cost for the Industry, and when
13 you get into those circumstances and you have very
14 difficult tradeoffs to make, then the more confident
15 you can be in terms of the estimates of the benefits
16 and costs, whether they be strict economic or whatever,
17 the more likely you are to arrive at a better decision.

18 The question -- where I am leading with
19 this line of questioning is that I recognize that
20 Industry is concerned from a proprietary point of view,
21 competitive point of view of releasing this type of
22 information on a road by road basis.

23 However, in our society we are faced with
24 that sort of thing on a recurrent basis. I can safely
25 say that Statistics Canada has developed very sound

1 protocols that have been tested for decades in this
2 country in terms of collecting and publicizing
3 proprietary, competitive information.

4 And what I am exploring with this panel,
5 attempting to, as best I can under the circumstances,
6 is to see; No. 1, do we have that information such that
7 we could collect it, and I would like then to explore
8 how that might be collected in such a way that the
9 proprietary and competitive concerns that the Industry
10 quite rightly has would not be violated.

11 And that's the point of my question.

12 MADAM CHAIR: Well, you seem to want to
13 know something about road costs. Why don't you ask
14 these panel members about road costs.

15 The issue of how you get your own
16 information, I don't quite understand that part, but
17 why don't you ask them. Because we have had evidence
18 before the Board on road costs, we have had estimates
19 of costs of building roads. Certainly I think they can
20 provide you with some information on that.

21 What are your questions to them?

22 MR. HANNA: I am prepared to go with the
23 questions, Madam Chair. I just wanted to make sure you
24 understand the reason I was asking these questions and;
25 that is, to confirm with this panel that in order to

1 vet estimates of road costs some historical knowledge
2 of actual road costs, the type of information that
3 these people told us that they collect on a routine
4 basis as part of road construction, that that
5 historical record is available on which to develop
6 future estimates of road costs.

7 And that's the point of the questions I
8 was asking Mr. Wright.

9 MADAM CHAIR: Are you saying, Mr. Hanna,
10 that you would think that someone could tell you that
11 the cost of building a road around a boreal owl's nest
12 was "x" dollars five years ago and that that cost
13 wouldn't bear any relationship to the cost of a road at
14 some point in the future?

15 MR. HANNA: It certainly does, Madam
16 Chair, yes. And my position is this: That gentlemen
17 such as this regularly undertake estimates of road
18 costs. I think, and I am prepared to ask this question
19 to the panel, you will find that in some cases their
20 estimates are wrong.

21 The only way they find out their
22 estimates are wrong is they build the road, they look
23 at the bills at the end and say: Hey, we thought this
24 road was going to cost us a hundred thousand dollars a
25 kilometre, it ended up costing a \$150,000 a kilometre.

1 The next time they do their estimate they look and they
2 say: Well, this is why we only estimate a hundred
3 thousand at that time, we're going to estimate it
4 higher given the knowledge we now have and adjust their
5 estimates accordingly.

6 And that's the essential element of
7 having historical data, it's that whole concept of
8 predicting, testing and revising based upon the
9 knowledge you gain as a result of doing something.

10 MR. MARTEL: Don't you think the Industry
11 has those figures.

12 MR. HANNA: Absolutely. The question is,
13 does the public.

14 MR. MARTEL: Well, I understand that, but
15 you haven't asked that question; are they prepared to
16 make them available to the public. It is a direct
17 question.

18 MR. HANNA: Panel, are you prepared to
19 provide detailed costs on a road by road basis based
20 upon post-construction information?

21 MR. CASSIDY: Madam Chair, I can speak to
22 that. Our terms and conditions contain a term - we are
23 talking about the future here, we are talking about how
24 timber management planning is going to be carried on in
25 this province in the future - and our terms and

1 conditions, as well as the Ministry of Natural
2 Resources terms and conditions, in the analysis of
3 alternate corridors call for the consideration and
4 analysis, call for estimates of construction, wood
5 transportation and road maintenance costs and, in our
6 case, where appropriate, to be included in that
7 analysis.

8 So as we see the analysis going in terms
9 of alternate corridors, that process would include an
10 estimate of those.

11 Obviously in the planning process you
12 couldn't do any more than estimate because you are
13 planning for the future in terms of getting the road
14 costs there. So the public will know in terms of the
15 road costs what the road cost is estimated to be for
16 each corridor.

17 And that's the position of OFIA/OLMA as
18 stated in your terms and conditions.

19 MR. HANNA: With the greatest respect for
20 my friend, he hasn't addressed the question that I have
21 asked.

22 The question was not: Will they provide
23 the estimates, my question was: Will we be provided
24 with actual costs after the fact as a basis upon which
25 future estimates can be tested?

1 MR. CASSIDY: The answer to the question
2 is that my client has objected consistently and will
3 continue to object consistently to the production of
4 data for -- of road cost data for very obvious
5 competitive reasons.

6 We do live in a free market, we do live
7 in a competitive market and my clients are associations
8 made up of people dealing with each other regularly.
9 That is the reason we would object to that being
10 included.

11 I am assuming that Mr. Hanna is talking
12 about this as going into a future timber management
13 plan. That is the main reason why we are objecting to
14 that being a component of any timber management
15 planning process because, for competitive reasons and
16 for maintaining the competitive nature of the Industry,
17 that is absolutely vital to my client's submission.
18 Therefore, that's our position and we have made that
19 known consistently.

20 We have endeavored, I might add however,
21 to provide - and Mr. Hanna's aware of this - to provide
22 parties with historical data to date when asked in
23 relation to the overall spending by the Industry and
24 government as we understand it, as we heard in relation
25 to road costs from the perspective of the overall

1 Industry for the benefit of the parties.

2 MR. HANNA: Mr. Martel, that is the
3 reason why I didn't ask the question so pointedly
4 because I knew the answer. And the reason I made the
5 reference earlier too, Madam Chair, with respect to the
6 Statistics Canada is, that is a recurrent issue that we
7 face in our society. There are remedies to the
8 concerns that the forest industry has.

9 The reason I started on this line of
10 questioning I had was to lay the basis for the fact
11 that there are reasons that the estimates that might be
12 included in timber management plans could be suspect
13 under some circumstances. There is reasons to say
14 that.

15 MR. CASSIDY: And I look forward to
16 hearing those reasons in his evidence.

17 MR. HANNA: Fine.

18 MR. CASSIDY: You may have that
19 difficulty, but I want to hear that in his evidence,
20 Madam Chair, because I do not accept that and I don't
21 think this Board should attach any weight to that in
22 the absence of hearing evidence.

23 MR. HANNA: Madam Chair, he was asking me
24 can I provide the evidence why that's likely the case.
25 I can assure my friend that I will be providing that

1 evidence. What I will not be able to provide to my
2 friend is detailed road by road cost information
3 because that is information that is only available from
4 the Industry themselves and I obviously don't have
5 access to that.

6 But if it's a matter of me presenting why
7 there may be reasons to suspect those costs, I can
8 assure my friend that I will bring that evidence
9 forward before this Board.

10 MR. CASSIDY: And what I suggest we do
11 then, Madam Chair, is after hearing that from Mr.
12 Hanna's witnesses that we then deal with this matter in
13 argument, if necessary.

14 MR. HANNA: I have every intention of
15 dealing with this in argument, Madam Chair. In the
16 meantime, I would like to explore with these witnesses
17 the detailed estimated cost procedures they have, the
18 detailed information that they collect on a road by
19 road basis, and how that information could possibly be
20 assimilated and distributed without violating the
21 proprietary and competitive concerns that the Industry
22 has.

23 MR. CASSIDY: And I have serious
24 questions about the relevancy of that, Madam Chair.
25 Perhaps he can demonstrate that to the Board.

1 MADAM CHAIR: Mr. Hanna, what are your
2 questions? Break down the question for me.

3 MR. HANNA: My questions go along this
4 line, Madam Chair. Mr. Cassidy has been most
5 co-operative in response to an interrogatory from
6 Forests for Tomorrow and the Ministry of Environment
7 with respect to road costs, and I intend to enter that
8 as an exhibit.

9 The information is provided in an
10 aggregate form for one year and I would like to explore
11 with this panel how that information might also be
12 presented on a recurrent basis as part of the normal
13 timber management planning process that hopefully will
14 be instituted in the province in such a way that it
15 will not violate the concerns Mr. Cassidy's clients
16 have. And that is the line of questioning I wish to
17 pursue.

18 MADAM CHAIR: I am not sure if the panel
19 members can answer that, but you can put it to them.

20 MR. HANNA: I am interested in finding
21 out the types of information they collect and whether
22 the form of information I can see it being presented in
23 would be available as a routine part of the information
24 they collect?

25 MADAM CHAIR: The financial information

1 they collect? The information on the costs of roads?

2 MR. HANNA: Yes.

3 MADAM CHAIR: You want to know something
4 about the way that they budget and spend on their road
5 building programs?

6 MR. HANNA: And account for.

7 MR. CASSIDY: I still have not heard
8 justification for getting into the consideration of
9 road spending and road budgeting.

10 This is a panel talking about activities,
11 how the activity is carried out; and how the budgeting
12 is done for it, I fail to see the relevance of it. We
13 are talking about impacts on the environment here and
14 we are talking about how to carry out this activity;
15 i.e., access in the most environmentally sound fashion.

16 I presume that is what this Board is here
17 to decide on, not how my clients estimate how much
18 money they are going to spend.

19 MR. HANNA: Madam Chair, it's right out
20 of the witness statement my friend has submitted to
21 this Board.

22 "The road planning process must fairly
23 assess the economics of each location."

24 Need I go further? I am sorry that my
25 friend hasn't heard my explanation for why this is

1 critical information. I will say it again as briefly
2 as I can.

3 You estimate, you collect information,
4 you modify your estimates and you go on and make better
5 estimates in the future. That's the rationale, that's
6 the reason. I can't say anything more, and I would ask
7 you for a ruling on this so we can get on with it.

8 MADAM CHAIR: Well, Mr. Hanna, the Board
9 is still having trouble understanding exactly what your
10 questions mean. Is there something in that exhibit
11 that would be helpful to us?

12 MR. HANNA: Well, we might as well submit
13 it now and I will leave that to the Board to decide.

14 MADAM CHAIR: Are you asking this panel
15 to look at this exhibit?

16 MR. HANNA: It's an interrogatory.

17 MADAM CHAIR: Yes, but you are asking
18 them to help you determine if somehow they can provide
19 that sort of information to you in the future?

20 MR. HANNA: Yes.

21 MADAM CHAIR: All right. Well, let's see
22 the exhibit.

23 MR. HANNA: (handed)

24 MADAM CHAIR: That will be Exhibit 1118,
25 Mr. Hanna.

1 ---EXHIBIT NO. 1118: FFT Interrogatory Question No. 1,
2 MOE Interrogatory Question No. 1,
3 NAN Interrogatory Question No. 3.
(Panel 5).

4 MS. BLASTORAH: Sorry, Madam Chair, what
5 was the exhibit number on that?

6 MADAM CHAIR: 1118.

7 MR. CASSIDY: Perhaps for the record Mr.
8 Hanna could indicate what the interrogatories are in
9 that exhibit.

10 MR. HANNA: It includes Interrogatory
11 Question No. 1 from Forests for Tomorrow for Panel 5,
12 Interrogatory No. 1, Ministry of Environment, Panel 5,
13 Interrogatory No. 3 from NAN with respect to Panel 5.

14 MR. CASSIDY: Thank you.

15 MR. HANNA: Q. Now, Mr. Wright, are you
16 familiar with this exhibit?

17 MR. WRIGHT: A. Yes, I am.

18 Q. And this was prepared as a result of
19 a one-time survey conducted of members of the
20 OFIA/OLMA; is that correct?

21 A. That's correct.

22 Q. And it provides an indication of the
23 proportion of road costs subsidized by the Ministry of
24 Natural Resources and that proportion paid by the
25 forest industry for the year 1989-90?

1 A. Yes, it does.

2 Q. And particularly with respect to the
3 answer to Ministry of the Environment, it actually
4 gives an estimate over the last five years of the total
5 expenditure on forest access roads; is that correct?

6 A. Yes, it does.

7 MR. CASSIDY: If I can just indicate
8 something for the record, just so it's clear. When we
9 are a year down the road, and I don't know whether Mr.
10 Hanna is going to refer to this, it is in respect of 15
11 companies. There are a great many more in both
12 associations.

13 MR. HANNA: Q. Now, Mr. Wright, is it
14 your view that the reason this information could be
15 released in its form as indicated in these
16 interrogatories is that because there is a number of
17 companies involved that the competitive and proprietary
18 rights of the individuals would not be violated; that
19 is why it could be produced this way?

20 MR. WRIGHT: A. In my belief, yes.

21 Q. And if the interrogatory had asked
22 for specific numbers for specific companies, that would
23 have been violating -- would you expect that would have
24 violated such concerns that companies such as
25 yourselves have?

1 A. Yes, I do.

2 Q. Now, I would like to explore in terms
3 of these costs, alternate ways that they might be
4 presented and still respect those concerns in terms of
5 proprietary and competitive rights.

6 Would it not be possible to present
7 similar types of figures, aggregate figures for
8 different classes of road and terrain types through
9 similar types of surveys or a regular reporting
10 requirement, a confidential reporting requirement to an
11 agency such as the Ministry of Natural Resources?

12 A. I cannot say our company would be
13 willing to follow that procedure.

14 Q. Even if it were presented on an
15 aggregate basis, such that if I worked for
16 Abitibi-Price I couldn't look and see what Canadian
17 Pacific Forest Products costs were?

18 A. Confidentiality is confidentiality
19 and I don't know if we would go as far as to give out
20 our costs.

21 Q. No, no, I understand that. But you
22 have given away costs here. This is evidence, this is
23 patent proof that you have given away costs. It's a
24 matter of how those costs are disseminated; is that not
25 a key issue?

1 MR. CASSIDY: Well --

2 MR. WRIGHT: How and who they disseminate
3 to.

4 MR. CASSIDY: Yes, I have to clarify
5 that. The Industry association has produced an overall
6 cost figure in an attempt to be as helpful as we can
7 possibly be. There was not disclosure of individual
8 company costs here and never intended to be and never
9 will be.

10 MR. HANNA: And I appreciate that.

11 MR. CASSIDY: I just want to clarify that
12 on the record.

13 MR. HANNA: I appreciate what my friend
14 has said, and just so that there is no misunderstanding
15 also on the record, I was not requesting company
16 specific information, what I'm requesting or what I'm
17 exploring as a possibility is the ability to present
18 aggregate information across company but in terms of
19 different classes of road on generic terrain
20 conditions.

21 MR. WRIGHT: That would result in
22 divulging our costs and I don't think we want to do
23 that by company.

24 MR. HANNA: Q. But hasn't this resulted
25 in you divulging your costs, Mr. Wright? Haven't you

1 divulged right here?

2 MR. WRIGHT: A. I said to who I divulge
3 it is another thing.

4 Q. Well, let's put aside the to who,
5 let's say it's the OFIA that becomes the porter of
6 information in this particular case. Can you answer
7 the question in that circumstance?

8 A. Yes, that would be feasible.

9 Q. Now, these costs that have been
10 presented here include both construction and
11 maintenance;; correct?

12 I am looking on page 2 of the exhibit,
13 looking at the third last line, it says the 160,000 odd
14 dollars was spent on construction and maintenance.

15 MR. CASSIDY: That's 160-million odd
16 dollars.

17 MR. HANNA: Sorry, I dropped a couple of
18 zeros. Excuse me, Mr. Cassidy.

19 Q. 160 odd million dollars.

20 MR. WRIGHT: A. Yes, that's correct.

21 Q. And likewise it would be possible to
22 provide that information on a construction and
23 maintenance breakdown with the clause that we talked
24 about as to who actually maintains or controls that
25 information. You collect that information as a routine

1 part of your business?

2 A. Yes, I believe that's true. I can
3 only speak for myself but I do, yes.

4 Q. Is this the experience of the other
5 members of the panel, that information in terms of
6 construction costs by different class of road would be
7 available and that maintenance costs by different class
8 of road would routinely be available?

9 Does anyone disagree with that.

10 MR. ZORN: A. I disagree.

11 Q. Okay, Mr. Zorn, what would you
12 routinely collect in terms of costs?

13 A. We would probably collect
14 construction costs but we do not -- on an individual
15 basis.

16 Q. I'm sorry, you don't...?

17 A. We collect construction costs on an
18 individual basis per unit, but maintenance cost is one
19 number that comes in, does give you between this road
20 and that road.

21 Q. And it's not broken down by primary
22 or secondary?

23 A. There is some primary breakdown, but
24 not secondary or tertiary roads.

25 Q. So I would be able to -- no, I

1 understand what you are saying to me now is, I couldn't
2 tell you - for the lack of a better road - the Suzanne
3 Road, if that was a secondary road, I wouldn't be able
4 to say how much was specifically spent on maintenance
5 of that secondary road. You would be able to tell me
6 how much was spent on secondary road maintenance in
7 total in the FMU?

8 A. Mr. Hanna, this Suzanne Road would be
9 part of the tertiary road, would not be part of the
10 maintenance.

11 Q. Let's go to the Suzanne Road,
12 tertiary road, and can I have the --would you be able
13 to collect the maintenance information for a tertiary
14 road?

15 A. We do have maintenance information
16 for tertiary roads and we probably have information on
17 primary roads.

18 Q. Do any other panel members have
19 anything to add on that?

20 MR. MURRAY: A. Mr. Hanna, I would just
21 like to more or less disqualify myself from the
22 association discussions. I do not represent an FMA and
23 I can't speak for G.W. Martin.

24 Q. I appreciate that, Mr. Murray. So
25 that information is there. The key question, Mr.

1 Wright, is a matter of; No. 1, what access is given to
2 that information, and how the information is presented
3 such that confidentiality concerns are not violated.
4 Is that a fair assessment?

5 MR. WRIGHT: A. In my opinion, yes.

6 Q. All right. Then we will leave that
7 topic and I would like to move to something else now.

8 Mr. Zorn, in your oral evidence this
9 morning you referred to slide 2.6 and I believe I heard
10 you say that the access planning or the development of
11 that road system started in 1972; is that correct?

12 MR. ZORN: A. That approximate time,
13 yes.

14 MS. BLASTORAH: I'm sorry, could Mr. Zorn
15 speak up a bit. I can't hear him.

16 MR. ZORN: The approximate time.

17 MR. HANNA: Q. And you mentioned a
18 number of physical features that limited the access
19 options and in particular you referred I think to a
20 large swamp on the Suzanne Road?

21 MR. ZORN: A. That's correct.

22 Q. I realize this is somewhat of a
23 trivial question, but those features don't tend to move
24 much or change much over time?

25 A. I assume they have been there for a

1 long time, yes.

2 Q. Now, with that particular case study
3 has the primary access road network for all intents and
4 purposes been completed, or is it still in its -- still
5 being developed?

6 A. There are still secondary roadwork
7 being developed.

8 Q. No, my question was the primary road
9 access road system?

10 A. As far as I know, yes, it has been
11 completed.

12 Q. And the primary access road system
13 for all intents and purposes puts some pretty strong
14 constraints on your secondary roads. These things are
15 essentially the backbone of your access network; is
16 that not correct?

17 A. That is correct.

18 Q. So the major access planning that is
19 required in that particular FMU is the secondary road
20 system has to be completed and, of course, tertiary
21 roads as required?

22 A. Would you repeat that, please?

23 Q. Sure. In this particular FMU the
24 major access development that's required is the
25 completion of your secondary road system and the

1 tertiary roads as required on a site by site basis?

2 A. For the future, yes.

3 Q. Now, what proportion of the secondary
4 access road system in just very, very general terms is
5 probably in place at the present time?

6 A. I have to disqualify myself. This
7 area is right now operated from our Dryden Division and
8 I don't really know how much is developed.

9 The last time I was in there I know the
10 second primary road has been in place. How many more
11 secondary roads have to be built, I am not aware.

12 MR. CASSIDY: Could I have a minute to
13 speak to Mr. Hanna.

14 ---Discussion off the record

15 MR. CASSIDY: Thank you, Madam Chair.

16 MR. HANNA: Thank you, also.

17 Q. Mr. Wright, I believe in your
18 evidence-in-chief you made reference to the difficulty
19 in planning access beyond 20 years and you said it's
20 very hazy and difficult to deal with; is that correct?

21 MR. WRIGHT: A. That's correct.

22 Q. You mentioned a number of serious
23 difficulties such as market, equipment developments and
24 said 80 years down the road who knows where we are
25 going to be.

1 A. That's correct.

2 Q. Now, given what Mr. Zorn has just
3 told us with respect to the FMU that he is familiar
4 with, we aren't faced with that problem; are we, the
5 access system has, for all intents and purposes,
6 already been put in place?

7 A. I can't speak to that, I don't know
8 the English River Forest very well. There could' be --
9 it could well be true that there is another section of
10 that forest. I honestly can't speak to that.

11 Q. Well, when you were making that
12 comment, were you referring to the primary access road
13 system, the secondary road access system, or the
14 tertiary road access system?

15 A. I would believe it would be the
16 primary access road system. That is what I was
17 referring to.

18 Q. And what FMU is it that you are both
19 familiar with, you mentioned the Pinelands?

20 A. The Pineland.

21 Q. And where is that located?

22 A. It's west of Timmins. It's near
23 Timmins, inbetween Timmins and Chapleau.

24 Q. And how much of the primary road
25 network in that particular FMU is in place; roughly

1 speaking?

2 A. I'm guessing at 50 per cent.

3 Q. And how long would you expect before
4 the major elements of the planning road access system
5 in that FMU, given what you know now, will be
6 installed?

7 Are we talking 10 years, 20 years, 500
8 years, just a field?

9 A. Basically what I know now is I work
10 on a 20-year horizon and after my 20-year horizon I
11 still do not have the primary road system in place.

12 Q. And you don't look any further into
13 the future than 20 years? At 20 years all of sudden
14 the lights go off?

15 A. No, they don't go off, but it becomes
16 very hazy.

17 Q. 20 years also becomes very hazy?

18 A. Even around the 20-year point it does
19 become, yes. It starts to become, yes.

20 Q. But would it be your view that it
21 would be better not to consider, even though accepting
22 it's hazy, accepting that there are all sorts of
23 uncertainties that are going to come into play, do you
24 think you are better in terms of evaluating an access
25 road system to just put the blinders on at 20 years and

1 only look that far ahead, or do you think it would be
2 wiser to say: What I know now, in the fullness of time
3 this is how I could see that access -- that FMU being
4 access? Which would be a more reasonable approach in
5 your view?

6 A. We are very happy with the 20-year --
7 the 20-year plan right now. Anything beyond 20 years
8 we just cannot seriously put another location on it.

9 Q. With the greatest of respect, Mr.
10 Wright, you didn't answer my question. Which would be
11 more reasonable?

12 MR. CASSIDY: Well, I think he did, he
13 said 20 years.

14 MR. WRIGHT: I think the 20 year would.

15 MR. HANNA: Q. Put blinders on and only
16 look 20 years?

17 MR. WRIGHT: A. I wouldn't describe it
18 that way, but I would say I would prefer the 20-year
19 location.

20 Q. Now, let's just take the case that we
21 were so bold and brass as to look beyond 20 years in
22 our access planning. Aren't you going to face the same
23 circumstancess as you are faced with in the 20-year
24 planning in that it's likely you are going to want to
25 change that some time before you can get to that fully

1 in the future? The world changes.

2 A. Yes, the world changes, but the
3 likelihood of a 20-year change compared to 100 year or
4 120 or 150 is much less. It is much likely that the
5 20-year change is much less than the 120-year plan or
6 150-year plan.

7 Q. I will not disagree with you at all
8 in that respect, but by the same token the likelihood
9 of a 20-year versus a 30-year is much less?

10 A. I'm not sure of that question, could
11 you repeat that?

12 MADAM CHAIR: Mr. Hanna, are you saying
13 that if you build roads over a 50- or 100-year time
14 span that you will put them into a different location
15 in a management unit than you will if you plan for 20
16 years?

17 MR. HANNA: Yes.

18 MADAM CHAIR: Or that you would devise
19 different uses, strategies for those roads?

20 MR. HANNA: All of the above. It's the
21 position of my client that in order to deal with a
22 number of issues that have been raised by various
23 parties, such as forest fragmentation, inaccessible
24 areas, concerns of my friend Mr. Edwards in terms of
25 remote tourist establishments, that one way to deal

1 with that is to look not only at the 20-year horizon
2 but to look at the ultimate access, state of a forest
3 management unit.

4 And it is my understanding that for all
5 intents and purposes we may well have all of the area
6 of the undertaking with a primary access road system in
7 place within as little as 40 years.

8 MADAM CHAIR: Well, the Board hasn't
9 heard that evidence.

10 MR. HANNA: No, I understand that. I
11 realize that it's not evidence, I am providing that to
12 you as a basis upon which I am developing this
13 position.

14 The point being that in developing a
15 20-year access plan the responsible and logical
16 forester looks ultimately at how he is going to access
17 the whole plan, not just his 20 years. The world
18 doesn't stop after 20 years, and we certainly don't
19 want to stop the world in terms of normal forest in
20 terms of protecting wood supply and all the other
21 things we deal with in this application.

22 And the question I am putting to this
23 panel is: How difficult a problem is that and what
24 benefits there might be in terms of dealing with many
25 of the concerns that parties to this hearing have

1 raised before the Board.

2 That's the substance of what I'm trying
3 to do.

4 Q. So, Mr. Wright, to continue on. From
5 your point of view you feel that - from a planning
6 point of view - that as a forester you are much better
7 to only look 20 years into the future as opposed to
8 looking at the ultimate access state of your FMU?

9 That's my understanding of what you've
10 said.

11 MR. WRIGHT: A. I believe that a 20-year
12 plan is a much more substantial plan than a 100-year
13 plan would be and I do agree with the statement, yes,
14 the 20-year plan is much better.

15 MS. BLASTORAH: Madam Chair, could I
16 perhaps just interrupt for one second. I just wanted
17 to clarify a comment made by Mr. Hanna that I will
18 indicate in a moment.

19 You already clarified that you have not
20 heard evidence to the effect that the primary access
21 will be in place in 40 years and Mr. Hanna confirmed
22 that.

23 I also just wanted to clarify that it is
24 not my understanding that the Board has heard any
25 evidence to date in any event that some different road

1 planning network is necessary in order to address the
2 concerns identified by Mr. Hanna, such as forest
3 fragmentation. We simply haven't heard any evidence
4 that I recall to the effect that some different
5 planning or different road network is necessary to do
6 that.

7 And I only mention it at this point
8 because I think his questions to some extent are
9 premised on that need, and he may call evidence to that
10 effect in his case and I would just like to clarify
11 that at this point.

12 I'm sorry to interrupt, Mr. Hanna.

13 MR. HANNA: Madam Chair, I am afraid it
14 is not going to be possible for me to stand by my
15 commitment to this Board that I was going to avoid
16 flying back up here on Monday. Given the amount of
17 interruptions I've had, I am not going to be able to
18 finish today. I apologize for that, but obviously it
19 is out of my control.

20 MR. CASSIDY: I don't know if it is out
21 of his control or not. I mean, these issues are known
22 from other parties. That's an unfair comment of other
23 counsel. I think we have all attempted, as we would
24 expect any counsel to do, to exercise restraint in
25 making objections and I think both Ms. Blastorah and

1 obviously Mr. Edwards has, and I obviously don't accept
2 that and I'm insulted --

3 MADAM CHAIR: Thank you, Mr. Cassidy. In
4 effect, Mr. Hanna, you told us at the lunch break that
5 you had spent more time than you thought you would on
6 the qualifications and training from the members, but
7 in any event we won't interrupt you any more. I think
8 you have about 20 minutes.

9 MR. HANNA: I will do my best in those 20
10 minutes, Madam Chair.

11 In response to Ms. Blastorah, I simply
12 say I think I made it patently clear that I did not in
13 any way suggest that any evidence had been presented
14 and that I was presenting it to you on a basis upon
15 which my client is proceeding and that obviously it's
16 my obligation to present evidence by longer time
17 horizons.

18 Q. Mr. Wright, just a couple of
19 questions to end off on this topic. Are you familiar
20 with the concept of forest fragmentation?

21 MR. WRIGHT: A. I have read a few
22 articles on it but I'm not that familiar with it, no.

23 Q. Is one of the concerns with forest
24 fragmentation the amount of the forest that is
25 accessible and disturbed at any point in time?

1 A. Could you repeat that, please?

2 Q. Is one of the concerns revolving
3 around forest fragmentation the amount of the forest
4 accessed and disturbed at any point in time?

5 A. I believe that's correct.

6 Q. And would one of the ways to be able
7 to try and address this concern be to look at a forest
8 management unit and to look over time as to how that
9 forest management unit might change in terms of access
10 and harvesting pattern, other timber management
11 activities?

12 A. That would be part of an analysis if
13 it was required, yes.

14 Q. And it would require looking at least
15 at a rotation of the forest; would it not?

16 A. I don't want to claim to be an expert
17 here, but I would believe so, but I can't say that.

18 Q. Are you familiar with the concept of
19 cumulative environmental impacts?

20 A. Yes, I am.

21 Q. Is one way of dealing with cumulative
22 environmental impacts by looking at the ultimate
23 managed state of an FMU and comparing the cumulative
24 impacts against what are deemed acceptable at times?

25 A. I believe that's correct.

1 Q. Is it not true that the only way that
2 you would be able to do that would be to be able to
3 look at the forest management unit in terms of its
4 ultimate managed state in terms of access, harvest,
5 renewal, tending, protection and look at it in that
6 context?

7 A. I do not know. I can't honestly say.

8 Q. Now, this is another topic. I am
9 moving now to another topic and I am not sure whether
10 it's one that I should address to this panel or I
11 should save for Panel 10.

12 I am going to ask the panel members, is
13 use management strategies -- it is referenced in your
14 witness statement, but I'm not sure whether it is
15 really something I should address to this group other
16 than in terms of the environmental implications of
17 different abandonment strategies, what the evaluation
18 of use management strategy is.

19 Is that something I should put to this
20 panel, Mr. Wright, or should I save that for Panel 10?

21 A. I think you better save it for Panel
22 10. We support it in our terms and conditions and the
23 details should be saved for Panel 10.

24 Q. Mr. Zorn, I'd like to go back to you
25 on the matter of tertiary roads. Would you be able to

1 provide the Board with an approximation of the
2 proportion of harvest blocks that would consist of
3 tertiary roads?

4 MR. ZORN: A. What you want to know is
5 the area?

6 Q. Area, sorry.

7 A. Area.

8 Q. Of proportion.

9 A. Proportion. Tertiary roads would --
10 to estimate would be around 8 or 9 per cent.

11 Q. Of the total area harvested block?

12 A. That's correct.

13 Q. Is this estimate, other members of
14 the panel, a reasonable one in your experience? Does
15 anybody differ with that?

16 MR. GEMMELL: A. I would, we don't build
17 tertiary roads.

18 MR. WRIGHT: A. I would.

19 Q. Okay. Let's deal with each one
20 individually. Mr. Wright, you have got the microphone
21 in front of you.

22 MR. WRIGHT: A. Yes. My percentage of
23 land would be a little less than that. I would say in
24 the 50 to 60 per cent range, 50 per cent, 60 per cent
25 range for tertiary roads.

1 Q. Just a sec. 50 to 60 per cent of
2 what?

3 A. Of the land. Maybe I misunderstood
4 the question.

5 Q. So 50 to 60 per cent of the harvested
6 area would comprise tertiary roads?

7 A. Yes.

8 Q. Mr. Gemmell, what would your estimate
9 be?

10 MR. GEMMELL: A. We do not build
11 tertiary roads.

12 Q. Because of the unfavourable
13 conditions in the area that you work?

14 A. That's correct.

15 Q. But you do build winter access roads?

16 A. That's correct.

17 Q. They aren't considered a tertiary
18 road?

19 A. I don't think so, not in terms of how
20 you define them.

21 Q. In terms of -- you have in your
22 experience, your primary access roads, you have some
23 secondary access roads and you have these linear winter
24 access roads that run off by the primary or secondary;
25 is that correct?

1 A. That's correct.

2 Q. What proportion of the FMU would
3 comprise your winter access roads?

4 A. I indicated that we build about 25
5 per cent gravel roads and 75 per cent winter roads.

6 Q. 25 per cent gravel, is it primary and
7 secondary or are they --

8 A. That's correct.

9 Q. Those are tertiary -- those are
10 gravel tertiary roads?

11 A. Gravel, primary, secondary.

12 Q. Now I am asking about 75 per cent
13 winter access roads.

14 A. Yes.

15 Q. What proportion of your FMU would be
16 comprised of tertiary roads on an aerial basis?

17 A. Are we talking on a yearly basis
18 or...

19 Q. No.

20 A. A camp basis or a full unit?

21 Q. Over a harvest cycle. I'm talking
22 about -- let's just keep it simple. I am talking about
23 harvest block. What proportion of the harvest block
24 would be comprised of tertiary roads?

25 A. At least two-thirds of the area

1 because of the conditions in the Clay Belt.

2 Q. The difficulty in terms of skidding
3 the logs because of the --

4 A. The difficulty in accessing.

5 Q. Yes. Is that everyone? Did anyone
6 else have something to add on this?

7 Mr. Johnson, you have got a concern about
8 them, too?

9 MR. JOHNSTON: A. Yes. In our company I
10 would say our tertiary roads represent about 70 to 80
11 per cent of roads built.

12 Q. No, maybe we have got some
13 misunderstanding here.

14 MADAM CHAIR: You have got a couple of
15 different -- I don't what to interfere, Mr. Hanna, but
16 there were a couple of different responses.

17 MR. HANNA: Yes.

18 MADAM CHAIR: I think the confusion is
19 between what per cent is tertiary roads on the entire
20 number of roads built in an area, but in terms of the
21 harvest area I think someone was responding with
22 respect to if you had a three-hectare harvest area
23 two-thirds of that area would be covered by tertiary
24 roads.

25 MR. ZORN: Yes.

1 MR. HANNA: Q. That was your answer, Mr.
2 Zorn?

3 MR. ZORN: A. That was the answer I gave
4 you.

5 MR. MARTEL: Stop there because Mr. Zorn
6 I think also said -- I think he said it represented 8
7 or 9 per cent of the area.

8 MR. ZORN: Of the area.

9 MR. MARTEL: So we have two figures.

10 MR. HANNA: I understood Mr. Zorn to say,
11 and perhaps you can correct me, Mr. Zorn, that 8 or 9
12 per cent comprised the portion of the total harvest
13 block that would be tertiary roads.

14 MR. ZORN: That's correct, on the block
15 eight acres would be roaded.

16 MR. HANNA: Q. Tertiary roads?

17 MR. ZORN: A. Tertiary roads, which will
18 be regenerated.

19 Q. Okay. Now I am going to go back
20 through the panel, let's try it again and see if we can
21 get the record straight on this.

22 Mr. Perry, do you want to add something
23 on this?

24 MR. PERRY: A. I think I would say ours
25 would probably be in the neighbourhood of 5 per cent.

1 Q. Okay. Mr. Gemmell?

2 MR. GEMMELL: A. Is the per cent you are
3 asking gravel over a material?

4 Q. No. I accept in your particular
5 circumstance that you don't have tertiary roads in the
6 same way as the other panel members have spoken about
7 tertiary roads. I hear you that you have winter access
8 roads. I am now speaking in terms of winter access
9 roads in a harvest block.

10 A. How much of the area is taken up with
11 tertiary -- with winter roads?

12 Q. Correct, in a harvest block.
13 Recognizing over time you can harvest the whole --
14 access the whole FMU, what percentage may apply?

15 A. I would say 2 per cent.

16 Q. Mr. Wright?

17 MR. WRIGHT: A. Yes, I would say about
18 two and a half, two to three per cent.

19 Q. Mr. Johnston?

20 MR. JOHNSTON: A. I would say about the
21 same as Mr. Zorn, 8 to 9 per cent.

22 Q. Mr. Murray, accepting that you are
23 not actively involved at the present time, you have had
24 experience building tertiary roads?

25 MR. MURRAY: A. Yes.

1 Q. What would you estimate?

2 A. Most of the roads built in the Great
3 Lakes area, tertiary roads in the developed areas,
4 probably 6 per cent or so.

5 Q. Okay. Once tertiary roads are --
6 once the harvest is completed and other activities,
7 immediate activities on a block of land, tertiary roads
8 basically are left unmaintained and quickly degrades if
9 they are no longer usable for access; is that correct,
10 Mr. Zorn?

11 MR. ZORN: A. Most tertiary roads are
12 destroyed during the regeneration work by scarifying or
13 Bracke or whatever.

14 Q. And that is exceptional, with respect
15 to the Great Lakes/St. Lawrence Forest, we have heard
16 Mr. Murray say it's a different circumstance?

17 A. MURRAY: A. That's right.

18 Q. Now, Mr. Zorn, you indicated that
19 when you undertake regeneration, those access roads are
20 destroyed; is that correct?

21 MR. ZORN: A. That's correct.

22 Q. Not all sites?

23 A. Unless they are required for future
24 treatment.

25 Q. Sorry?

1 A. Unless some of them are required for
2 future treatment.

3 Q. For future access for other--

4 A. For spraying, access.

5 Q. But not all sites are site prepared;
6 is that correct?

7 A. I'm not qualified to say how much is,
8 but I believe in our area most areas have been site
9 prepared when the catch-up is completed.

10 MR. CASSIDY: There will be
11 regeneration -- a renewal panel which has a case study
12 with this from Canadian Pacific Forest Products that
13 you can ask that question to. I apologize, the name
14 escapes me at the moment.

15 It would be Mr. Ferguson. Yes, Mr.
16 Murray Ferguson.

17 MR. HANNA: It's on the record and I'm
18 sure Mr. Cassidy can deal with it at that time.

19 Q. Mr. Zorn, you mentioned --

20 MR. CASSIDY: I was just trying to be
21 helpful.

22 MR. HANNA: Fine. If it's there then
23 they can deal with it, Mr. Cassidy.

24 Q. Mr. Zorn, you mentioned that all
25 tertiary roads were fully stocked when you were

1 referring to your--

2 MR. ZORN: A. Case study area.

3 Q. --your case study; is that correct?

4 A. That's correct.

5 Q. And when you mean fully stocked, you
6 meant that is in terms of a stems per hectare estimate?

7 A. In what was on line at the forest
8 management agreement.

9 Q. Have you or other members of your
10 company, to your knowledge, undertaken growth studies
11 of trees on tertiary roads and how that compares with
12 growth on other areas?

13 A. That information may be available
14 from our company but I'm not qualified to make a
15 statement. If you want my personal opinion I will give
16 you one.

17 Q. In that particular case though that
18 you did mention, what site preparation technique was
19 applied or practised?

20 A. Bracke work with seeding. And if I
21 may go back to the question earlier about Suzanne Road,
22 the area all --

23 Q. I am sorry?

24 A. Suzanne Road, and the area all had
25 been developed with primary roads and just after it

1 dawned on me, you mentioned FMU. The area I was
2 speaking of was strictly the western part of the
3 English River Forest management unit. It has now
4 primary roads.

5 Q. Right.

6 A. The easily part, Ignace and farther
7 east there are still areas that haven't been developed.

8 Q. Yes, I appreciate that the 8 or 9 per
9 cent you gave wouldn't apply in those cases because you
10 haven't accessed those sites?

11 A. That's right.

12 Q. But is there any reason for you to
13 expect that once they are accessed that that number
14 would be reasonably representative of those areas also?

15 A. They would be accessed, yes.

16 Q. Mr. Gemmell, in your evidence this
17 morning you mentioned -- or actually you showed a slide
18 of a tree growing in one of your winter access roads;
19 is that correct?

20 MR. GEMMELL: A. That's correct.

21 Q. Now, I was somewhat surprised that
22 you had a tree one foot high after nine years. And I
23 guess the question is similar to what I've asked Mr.
24 Zorn, what sorts of growth and yield studies were done
25 on your winter access roads?

1 A. Personally.

2 Q. Your company or personally?

3 A. Just personal observation. Actually
4 in the renewal panel I can show you the comparison
5 between that seedling, an advanced growth and a planted
6 seedling and it's quite dramatic.

7 Q. I beg your pardon?

8 A. It's quite dramatic, the difference
9 in growth one foot versus seven foot versus nine feet.

10 Q. Okay.

11 A. That is because of the regeneration
12 method, that seedling came from seed.

13 Q. From seed rather than advanced
14 growth?

15 A. That's right.

16 Q. Yes, I see.

17 MR. HANNA: If I'm given, Madam Chair,
18 that we go perhaps five or ten minutes over, I maybe
19 able to save you having to face me again on Tuesday
20 morning, if you would so indulge me.

21 MADAM CHAIR: Yes, Mr. Hanna. I hope
22 that's not because you don't want to see me on Tuesday
23 morning.

24 Q. Can I ask you to turn, Mr. Wright, to
25 page 24 of your witness statement.

1 MR. CASSIDY: The witness statement?

2 MR. HANNA: Yes, Exhibit 1116.

3 Q. Now, it's my understanding, Mr.

4 Wright, that you indicated that it's the Industry's
5 position that impacts on your natural environment can
6 be minimized, and I took that to mean are currently
7 being minimized as a result of road location and
8 construction practices and by use of appropriate
9 guidelines; is that correct?

10 MR. WRIGHT: A. That's correct.

11 Q. This question is really to any
12 members of the panel. Can you tell me what studies you
13 have undertaken to substantiate this statement, what
14 analysis of impacts in a scientific way have you
15 undertaken to support or substantiate this view?

16 A. Yes. Our company, speaking for our
17 company, hasn't performed any studies but we do attempt
18 to follow the guidelines and the experts at MNR which
19 should give us state-of-the-art information on how to
20 minimize the effects.

21 Q. Well, I understand the confidence
22 that many of us have or hope to have in the Ministry,
23 but this is your opinion. I want to make sure I
24 understand the basis for your opinion.

25 So you are saying your opinion is based

1 upon information that the Ministry of Natural Resources
2 has and, to the best of your knowledge, the forest
3 industry has no additional information?

4 A. I'm saying that the guidelines are
5 not put forward just by MNR, they are put forward by a
6 panel of experts in the particular fields and that is
7 whose advice we are following.

8 Q. Yes, but this statement says they can
9 be minimized. I'm not suggesting we don't have
10 guidelines and they aren't the best we can hope for and
11 all those good things, but this statement is they can
12 be minimized. That suggests that there is some basis
13 for that opinion that, yes, I attempted to minimize, I
14 went out and checked and, sure enough, I can minimize
15 them using these guidelines.

16 As I understand you are saying, we
17 haven't done that.

18 A. We have performed no studies after
19 this, but we do do visual inspections, we do inspect
20 expect all our crossings, we do again inspect all our
21 crossings and I can't recall any major problems.

22 Q. Well, we won't go back trying to
23 eyeball some of those things and what level of analysis
24 is required to protect some of the changes that the
25 public is concerned with.

1 Okay. The last bullet on that page says
2 there is different ways to mitigate environmental
3 impacts, and the bullet says:

4 "Providing adequate and competent
5 supervision of construction staff."

6 Now, can you tell me what minimum
7 standards or qualifications are necessary in order to
8 achieve this result?

9 A. Once again I can only speak for my
10 own company, but on our licence I'm responsible for
11 providing that supervision along with my staff and we
12 train our staff through government seminars, through
13 training ourselves, through on-the-job learning with
14 somebody else who knows what they are doing, and that
15 goes right down to our contractors and bulldozer
16 operators.

17 Q. So if you were faced with the
18 position of trying to standardize across the area of
19 the undertaking the level of quality of supervision
20 that took place in terms of access road construction,
21 one of the ways that you would deal with it is in terms
22 of ensuring up-to-date training and ongoing technology
23 transfer?

24 A. I believe that happens today but not
25 in such a formalized manner, yes.

1 Q. I'm looking now back on page 2,
2 paragraph 4, sub 5, and it indicates there that:

3 "Industry planners and supervisors are
4 well qualified through training and
5 experience to make sound access
6 decisions."

7 When you make this statement, are you
8 referring to engineering type decisions associated with
9 access planning, or are you referring more broadly to
10 the tradeoff decisions relating to the evaluation of
11 timber and non-timber values?

12 A. I believe I am referring to both, and
13 in my statement of evidence I believe we presented it
14 as, we give input to the decision-making through MNR
15 and ourselves, but I did mean both.

16 Q. So you were coming before this Board
17 and saying that you feel confident in being able to
18 make not only cost effectiveness decisions, if you
19 understand that term, but also optimization decisions
20 in terms of tradeoffs between timber and non-timber
21 values and you see that as part of your duty?

22 A. No, that is not what I mean. I mean,
23 I can contribute to a decision that will be made by a
24 planning process, I have the capability of contributing
25 to that decision.

1 Q. I don't challenge that, Mr. Wright,
2 but going back to the central theme of this panel,
3 there still are decisions that are made on the ground
4 after the timber management plan is approved within the
5 corridor and that often will require tradeoff decisions
6 between timber and non-timber values; is that not
7 correct?

8 A. Could you repeat that again, please?

9 Q. Sure. There is two elements that are
10 taking place here; one is the timber management
11 planning process. I think what you are saying, you're
12 a member of the timber management planning team, you
13 have got input to provide. I don't challenge that, I
14 think that Industry does have important input to
15 provide, certainly things such as cost estimates and
16 those sorts of things, very important things, such as
17 that you are in a much better position to make those
18 estimates than any other party.

19 But in terms of the other side of it, the
20 implementation of the timber management plan, because
21 you can't deal in excruciating detail with all of the
22 various eventualities that you are faced with, you have
23 to make decisions outside of the planning process per
24 se as a result of what you do in the field; is that not
25 correct?

1 A. Yes, that's correct. But it comes
2 back to the old problem: Do you send the biologist on
3 every road that is put in in this province. But that
4 is correct, yes.

5 MR. HANNA: One last topic, Madam Chair,
6 and I'm done. It's a short one.

7 Q. What experience, and perhaps Mr.
8 Wright may want to deal with this, what experience do
9 you have in the use of geographic information systems
10 in access road planning?

11 MR. WRIGHT: A. I would say limited
12 because we have purchased a system and we are just in
13 the data entry stage for the Pineland, but we have
14 purchased a system, so our experience on access
15 decisions by GIS is limited at this point.

16 Q. Is it your view, however, that
17 geographic information systems will likely become a
18 standard operating tool in the next 10 years for that
19 particular FMU; is that your intention or your
20 expectation?

21 A. Some form of it will. It's
22 continually evolving. Even in the year we've had it it
23 has changed quite a bit but, yes, some form of it will.

24 Q. Do you see a role for GIS in access
25 road planning?

1 A. Well, here's where I have got to pull
2 away from the Industry here and say I have got to speak
3 for myself, and I think it can help. It's not the
4 answer, but I think it can help.

5 Q. A useful tool?

6 A. Yes, that is a nice word.

7 Q. Given that it could be used as a tool
8 in that respect, would you see it as a way to
9 facilitate the evaluation of alternative access
10 corridors and initial tradeoffs; a way to facilitate,
11 not necessarily to make those decisions but to assist
12 you in trying to deal with those sort of decisions?

13 MR. CASSIDY: That really is the same
14 question asked again, as I can see it. The witness is
15 free to answer it.

16 MR. HANNA: I'm happy to withdraw that
17 question, Madam Chair, both in the interest of time and
18 to keep the record clean.

19 Q. One last question to you, Mr. Wright.
20 Are you familiar with the use of GIS applications in
21 other jurisdictions and the economies that can result
22 from it?

23 MR. WRIGHT: A. I can't say I am, I
24 really can't.

25 MR. HANNA: Panel, I thank you for your

1 time and I hope we all make the four o'clock flight,
2 Madam Chair. I appreciate your giving me that extra
3 time.

4 MADAM CHAIR: Thank you, Mr. Hanna.

5 We will be back on Tuesday morning at
6 8:30. We are starting at 8:30 on Tuesday morning and
7 we are starting with Mr. Edwards.

8 MR. EDWARDS: Thank you, Madam Chair.

9 MADAM CHAIR: See you at 8:30 Tuesday
10 morning.

11 Happy Easter!

12 MR. CASSIDY: Same to you.

13 ---Whereupon the hearing adjourned at 3:05 p.m., to be
14 reconvened on Tuesday, April 17th, 1990, commencing
at 8:30 a.m.

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